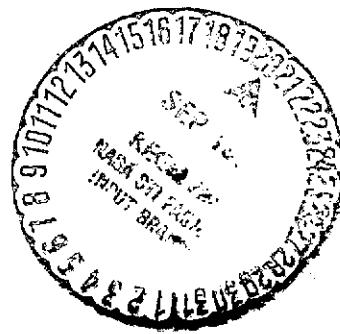


NASA TMX-72521

**TIROS VII
RADIATION DATA CATALOG
AND
USERS' MANUAL**

**Volume 4
(October 1, 1964 - June 19, 1965)**



**GODDARD SPACE FLIGHT CENTER
GREENBELT, MARYLAND**

(NASA-TM-X-72521) TIROS 7 RADIATION DATA
CATALOG AND USERS' MANUAL. VOLUME 4:
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TIROS VII
RADIATION DATA CATALOG
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VOLUME 4

OCTOBER 1, 1964

JUNE 19, 1965

by
Staff Members
of the
Laboratory for Atmospheric and Biological Sciences
Goddard Space Flight Center
National Aeronautics and Space Administration

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FOREWORD

The quantity of radiation data acquired from TIROS VII over a two year useful lifetime exceeds several times over the total quantity acquired from any of the previous TIROS radiation experiments. As a result, the TIROS VII Catalog-Manual is being published in four volumes. Each volume of this series contains time-dependent information for the specific time period covered by the Volume concerning radiometer response patterns, possible corrections for instrumental degradation, the Index of Final Meteorological Radiation Tapes, and Subpoint Track Summaries. This, the fourth volume, covers the time period October 1, 1964 to June 19, 1965, and also contains degradation corrections for channels 1, 2, 3, and 5. The first volume of this Catalog-Manual also contains general discussions about the nature of the experiment, the calibration, and the processing, coverage and documentation of the data. The third volume also contains discussions about asymmetrical degradation and the channel 1 (15 micron data) degradation corrections from launch.

Many members of the Laboratory for Atmospheric and Biological Sciences (formerly the Aeronomy and Meteorology Division) contributed to the success of the TIROS VII medium resolution radiometer experiment.

The task of obtaining and assembling the information contained in this manual into written form suitable for publication was largely accomplished by the following persons:

Mrs. Musa Pasternak, Editor

Mr. W. R. Bandeen

Mrs. Ingrid Strange

Mr. Frederick Woolfall

The efforts of these individuals are hereby acknowledged.

The preparation of the material presented in Appendix B was accomplished mainly through the effort of Mrs. Jo Anne Eller.

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I. INTRODUCTION

This volume contains time-dependent information for the period October 1, 1964 to June 19, 1965 concerning radiometer response patterns, the Index of Final Meteorological Radiation Tapes, and Subpoint Track Summaries. This volume also contains degradation correction nomograms for channels 1, 2, 3, and 5. General discussions of the experiment, the calibration of the radiometer, and the processing, coverage, and documentation of the data are found in Volume 1. General discussions of degradation are found in Volumes 1 and 3.

VI. PRE-LAUNCH AND POST-LAUNCH PERFORMANCE OF THE RADIATION EXPERIMENT

6.2 Post-Launch Behavior of the Experiment

Channels 1, 2, 3, and 5 continued to degrade, and channels 1 and 2 exhibited an increasingly greater degree of asymmetrical degradation. This degradation is seen in the quasi-global averages for floor, wall, and both sensors (Figures 70, 71, 73, 74, 83, and 84).

The degradation nomograms for channels 1, 2, 3, and 5 shown in this volume were constructed using the quasi-global averages as explained in Volume 3.

From Equation (23) for \bar{W}' in Volume 3, when both the floor and wall sensors view space, $\bar{W}^F \simeq \bar{W}^W \simeq 0$, and the space-viewed level is given by $(C^W - C^F)\bar{W}^S$. As the difference between C^W and C^F increases with days after launch, the space-viewed level rises. This happens for channels 1, 2, and 4, as shown in Figure 68.

The increase in the channel 2 space-viewed level required a raising of the channel 2 digital number representing the space-earth discriminant to 25 after January 1, 1965 from a digital number of 20 before that time. (Three or more consecutive channel 2 radiation values whose digital numbers are less than or equal to the space-earth discriminant are considered to be space-viewing. The relationship between digital number and T_{BB}

for channel 2 is shown in Figures 26 to 32. For example, at $T_c = 12^\circ\text{C}$, a digital number of 25 corresponds to measured channel 2 floor and wall temperatures of 217°K and 203°K respectively as seen in Figure 28.) Since the computer now has to consider a higher radiation level as the space-earth discriminant, it is possible for it to confuse low earth radiation values within a swath obtained by the wall sensor with the space-viewed level. Thus, one actual swath may be divided into two false swaths, with the mislocated data points in these two swaths being negatively tagged. Hence, one should be cautious in using negatively-tagged data in a computer listing.³⁹

The theory predicts that asymmetrical degradation (AOD) causes negative-going pulses to appear in the analog signal. Apparently, these negative-going pulses were too small to be detected throughout most of the history of useful TIROS VII data, but as the AOD increased, they became evident. They became approximately 4 cps by November 14, 1964 for channel 1 and 2.5 cps by May 19, 1965 for channel 2.

Negative-going pulses would not be present in the short wavelength channels even if AOD should occur because \bar{W}_s is essentially zero within the spectral response of these channels. To ascertain that AOD has definitely occurred in the short wavelength channels, it is necessary to view the same target through both sides of the radiometer. From February 15, 1965 to February 22, 1965, the spin vector of TIROS VII was torqued some 105° in such a manner as to allow the comparison of floor measurements over the Sahara Desert before the torquing with wall measurements taken after the torquing. The results for the wall and floor measurements of channels 3 and 5 vs scattering angle are shown in Figures 90a and 90b. These figures show that the wall side measurements for channel 3 are approximately 2.5 times larger than the floor side, and the channel 5 floor and wall values were approximately the same.

There is some uncertainty in the actual

amount of AOD present in channel 3 at this time because, after the initial torquing had been accomplished, T_c fell to -7°C (below 0°C , the lowest value for which a calibration run had been made in the laboratory).

Also, there is not a one-to-one correspondence between the component angles of incidence, reflection, and azimuth making up equivalent "scattering" angles. However, at least part of the 2.5 factor apparently can be attributed to AOD occurring in channel 3.

As in the previous volumes, an unfavorable satellite-sun geometry existed for several days at a time in the period covered by Volume 4, permitting the direct rays of the sun to impinge upon the sensors from the wall direction momentarily once during each satellite rotation. (See Section 6.2 of Volume 1 for a discussion of this phenomenon.) There were eleven periods during the time interval covered by this volume when such a unfavorable satellite-sun geometry occurred, viz., the periods including the orbits numbered 7120-7224 (TIROS VII days 482-489), 7631-7675 (days 516-519), 8073-8219 (days 546-556), 8464-8669 (days 572-586), 8771-8815 (days 593-596), 8959-8974 (days 606-607), 9459-9499 (days 640-642), 9586-9724 (days 648-658), 10409-10410 (day 704), 10510-10613 (days 711-718), and 10739-10784 (days 726-729).

In several orbits when there was no interference with the long wavelength channels but interference with the short wavelength channels only, the data were reduced. Data users should note that these "sun spikes" in the short wavelength channels produce erroneous values.

6.2.1 Channel 1 The corrections to channel 1 data were constructed using the \bar{W}_{ave}^i values from the quasi-global average curves in Figures 70 and 83 by the method described in Volume 3. These corrections are given in the two nomograms in Figures 77a and b of this volume. The cut-off date for the usefulness of channel 1 data was determined to be November 14, 1964 at which time negative-going pulses reaching a magnitude of 4 cps were observed.

6.2.2 Channel 2 The corrections to channel 2 data were obtained using the \bar{W}_{ave}^i values from the quasi-global average curves in Figures 71 and 84 by the method described in Volume 3. These corrections are shown in the nomograms in Figures 78a and b. As in Volume 3, Figure 89 gives the difference value $M = T_{\text{SFC}} - T'_{\text{BB(SFC)}}$, another indication of instrumental degradation.

6.2.3 Channel 4 The history of channel 4 data and degradation nomograms from launch until Day 249 are given in Volumes 1 and 2. Because of the subsequent erratic behavior and severe degradation of channel 4 data, their use after Day 249 is not recommended, and, hence, no further correction nomograms are given.

6.2.4 Channel 3 The correction nomogram in Figure 80 was constructed using the method described in Section 6.2.4, Volume 1, and is used in the same way as in Volume 1. The values of A^i used for the correction nomogram were obtained from the curves drawn through the quasi-global averages of Figure 73.

Since channel 3 degrades to approximately one-half of its original level by December 25, 1964, this was chosen as the cut-off date for the channel 3 correction nomogram.

6.2.5 Channel 5 The absolute magnitude of channel 5 values of Δf in Figure 68 decreased to an average of -0.5 cps. Thus the correction nomogram in Figure 81 was constructed using the new Δf value and the method described in Section 6.2.5, Volume 1. It is used in the same way as in Volume 1.

6.3 Estimate of the Accuracy of the Data

In all cases the estimates of accuracy given below apply to the midrange of target intensities. The accuracy of the thermal channels suffers additionally at very low target temperatures.

6.3.1 Channel 1 The estimated short-term relative accuracy of T_{BB} measurements from a given side (floor or wall) is $\pm 2^{\circ}\text{K}$, and the estimated absolute accuracy increases linearly from $\pm 12^{\circ}\text{K}$ on October 1, 1964 to $\pm 13^{\circ}\text{K}$ on November 14, 1965 after

applying corrections from Figure 77.

6.3.2 Channel 2 The estimated short-term relative accuracy of T_{BR} measurements from a given side is $\pm 2^\circ K$, and the estimated absolute accuracy increases linearly from $\pm 10^\circ K$ on October 1, 1964 to $\pm 15^\circ K$ on June 19, 1965.

6.3.3 Channel 4 No estimates for the period covered by Volume 4 are given.

6.3.4 Channel 3 and Channel 5 The estimates of the relative and absolute accuracies of channel 3 and 5 data have not changed from Volume 1.

6.4 Comments on Significant Engineering Aspects of the Experiment

The spin vector of TIROS VII was torqued about 105° during the period February 15-22, 1965, to permit the comparison of floor with wall sensor data over the sun-lit Sahara (See Section 6.2). The torquing maneuver changed the astronomical declination of the spin vector from $+23^\circ$ on February 15, 1965 to -65° on February 23, 1965. Before the torquing maneuver, the floor and wall measurements were predominately taken at day and night local time respectively. The torquing increased the minimum satellite nadir angle (angle between the spin axis and the orbital plane) from 17° to 56° , as listed in Appendix A. For an orbit having a 56° minimum nadir angle, most of the satellite data are in the alternating mode (Figure B2) and each of the floor and wall directions acquires both daytime and nighttime data on a more nearly equal basis than it usually does. Thus, for about a week after torquing (February 23 - March 1, 1965) the wall sensor viewed predominately the daytime Sahara desert in place of the floor sensor. The interchange of floor and wall values with time obviously influenced the magnitude of the average regional uncorrected measurements. As listed in Appendix A, the mini-

mum nadir angle decreased from 56° to 22° by March 7, and the predominant day-floor, night-wall pattern in the measurements returned once again.

CONCLUSIONS

The major limitation of the TIROS VII medium resolution radiometer experiment is the uncertainty in the absolute values of the measurements, resulting from the degradation of the radiometer response, and, also, from electronic degradation which, for the first time, was conclusively detected in TIROS VII. The degradation corrections given in Section VI can serve as a guide for interpreting the data in terms of absolute values. However, it must be emphasized that these corrections are only our best estimates, based upon certain simplifying assumptions, of the effects of a complicated degradation mechanism which we do not yet fully understand, and that the measurements thus corrected may still contain appreciable uncertainties.

Because of the extended lifetime of the radiometer, the potential of the TIROS VII radiometric data for climatological studies is significantly greater than it was for previous TIROS satellites. In utilizing the measurements over extended periods, however, channel 2 and 5 data should be used in lieu of channel 4 and 3 data, respectively, wherever possible because of the superior stability characteristics of the former two channels.

For studies involving relative measurements over a short period of time, data from channels 4, 1, and 3 are considered to be valid for time periods from launch to February 23, 1964, November 14, 1964, and December 25, 1964, respectively. For such studies, data from channels 2 and 5 are considered to be valid throughout the entire two year period covered by Volumes 1 through 4.

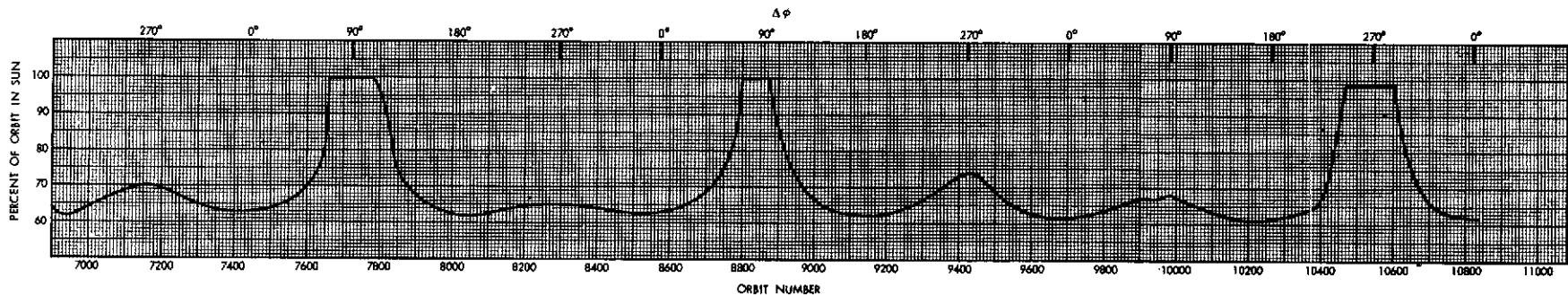


Figure 16a—Percent of the orbital period which the satellite spends in sunlight versus orbit number. Also shown on the upper abscissa is $\Delta\phi$, the right ascension of the sun minus the right ascension of the orbital ascending node.

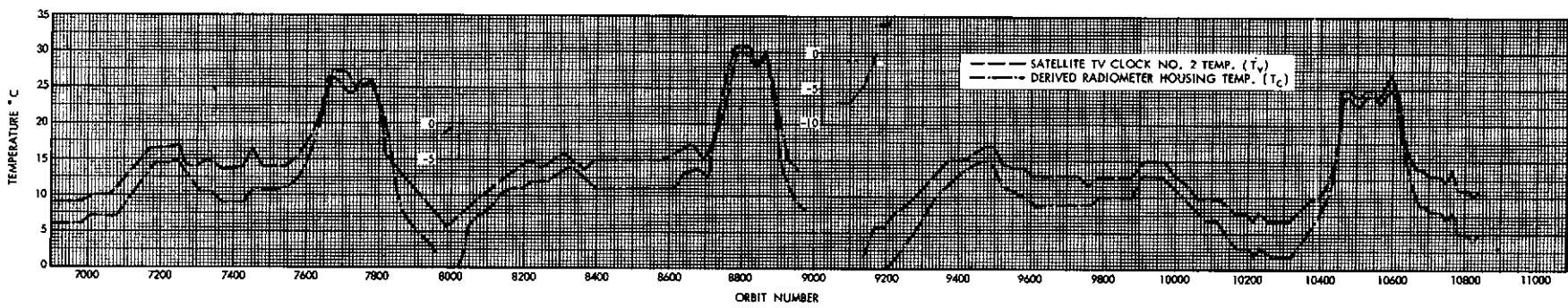


Figure 16b—Television clock number 2 temperature (T_v), and derived radiometer housing temperature (T_c) versus orbit number. Telemetry of the "housekeeping information" for the radiometer ceased at orbit 1276, after which T_c was derived from T_v . In orbits 7960 to 8000 and 9060 to 9170, T_c and sometimes T_v dip below 0°C. A separate temperature scale drawn beside the region of the dip is then used for the values below 0°C.

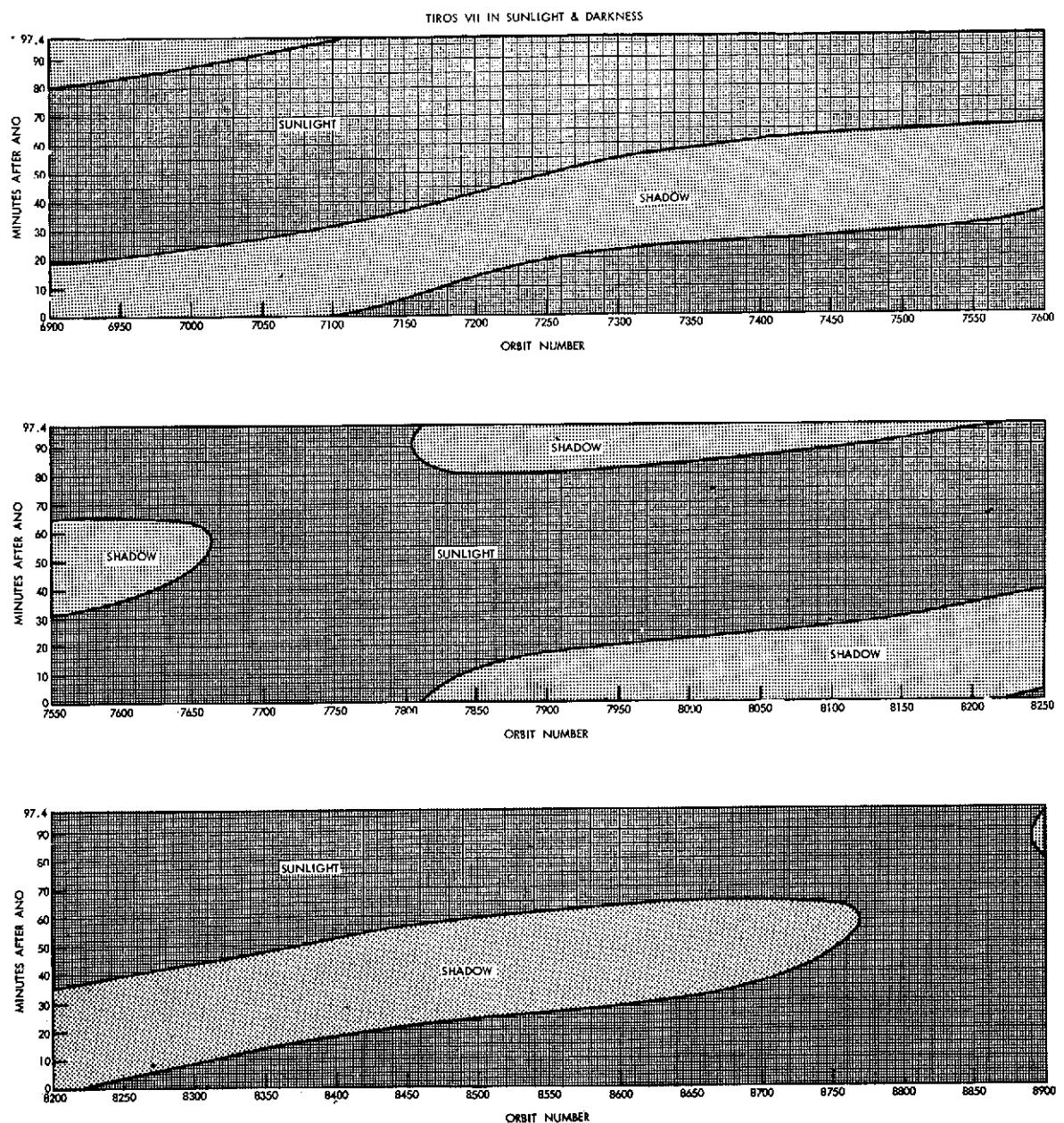


Figure 18—Portions of the 97.4 minute orbital period when the satellite is in sunlight and in the Earth's shadow, expressed in minutes after the ascending node, versus orbit number. *Figure 18* is continued on next page.

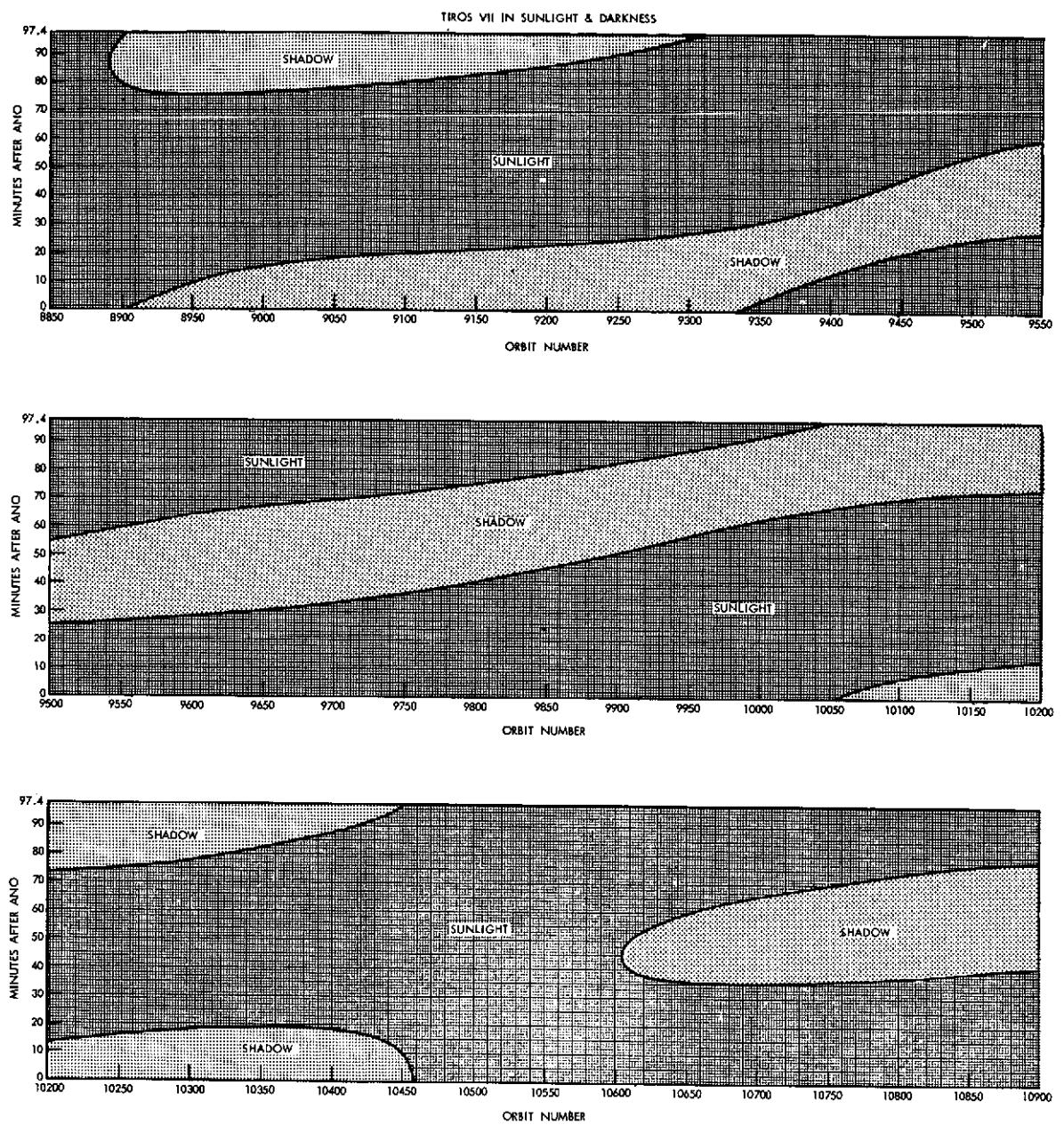


Figure 18—Portions of the 97.4 minute orbital period when the satellite is in sunlight and in the Earth's shadow, expressed in minutes after the ascending node, versus orbit number. Figure 18 is continued from preceding page.

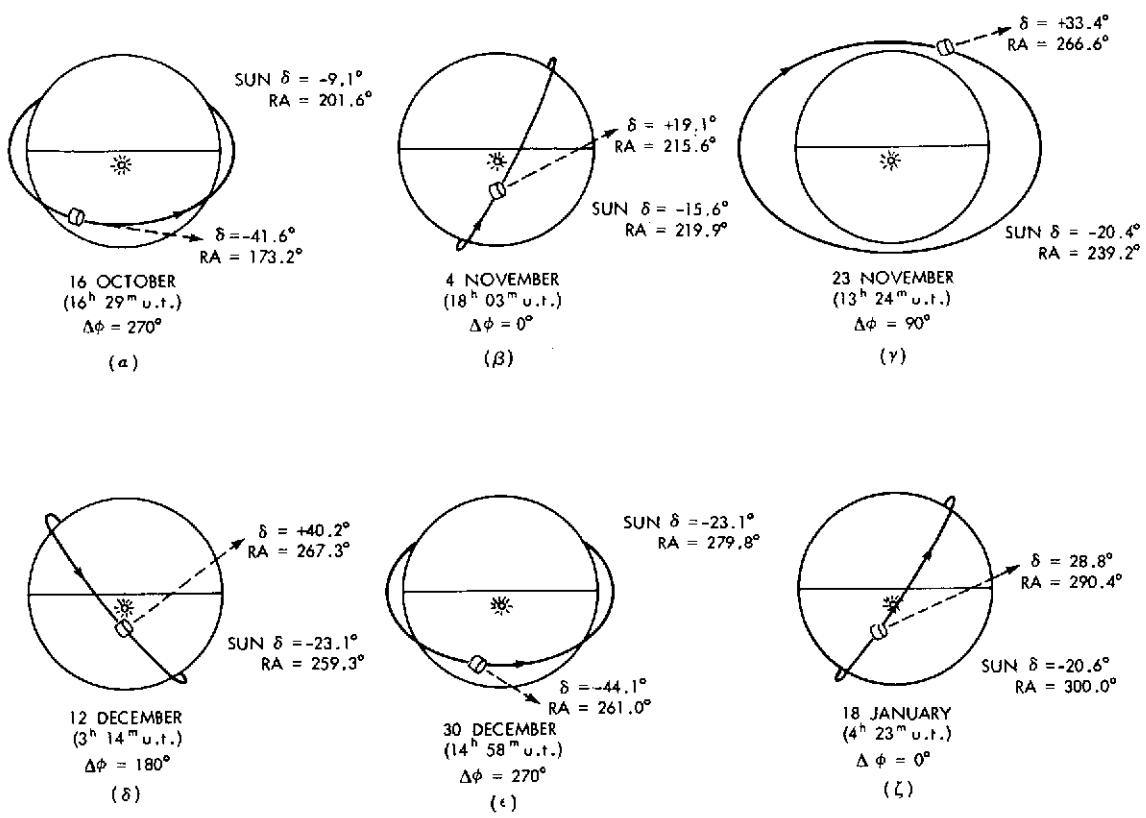
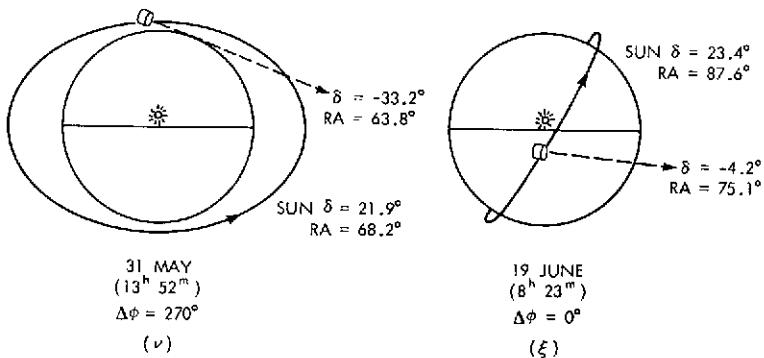
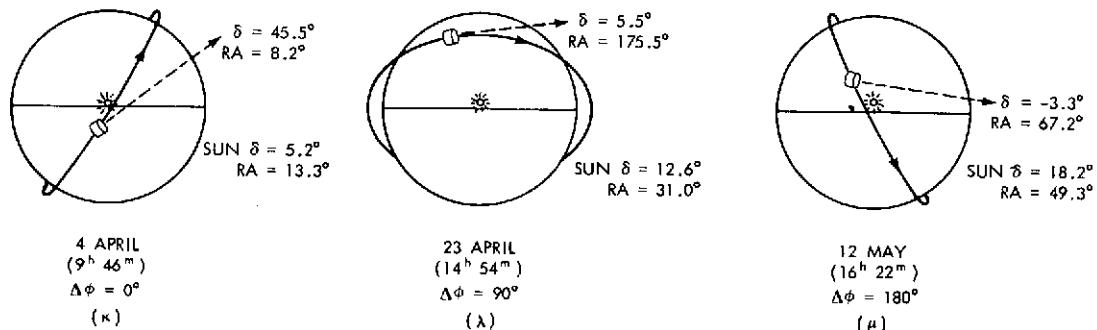
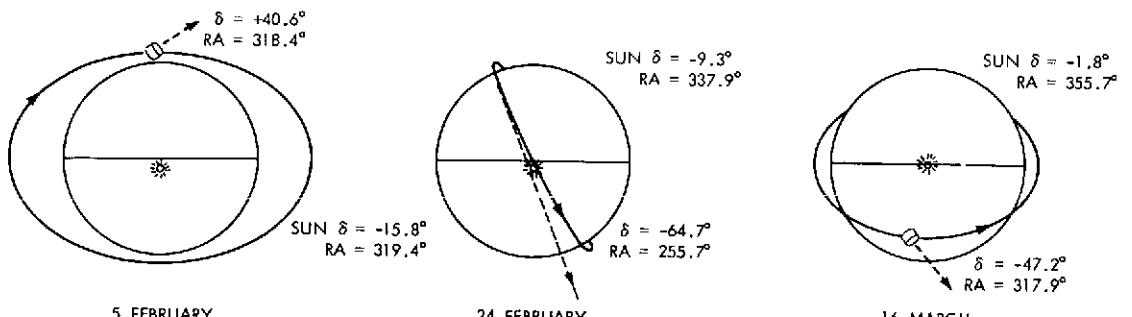


Figure 66—(α, β, γ, δ, ε, ζ)

Heliocentric views of the Earth and the precessing TIROS VII orbital plane. The celestial coordinates of the sun and the satellite spin vector are shown for each selected day. The time is given to the nearest minute and corresponds to the given value of $\Delta\phi$.



ALL CALENDAR DATES ARE IN 1965

Figure 66—(η, θ, ι, κ, λ, μ, ν, and ξ)

Heliocentric views of the Earth and the precessing TIROS VII orbital plane. The celestial coordinates of the sun and the satellite spin vector are shown for each selected day. The time is given to the nearest minute and corresponds to the given value of $\Delta\phi$.

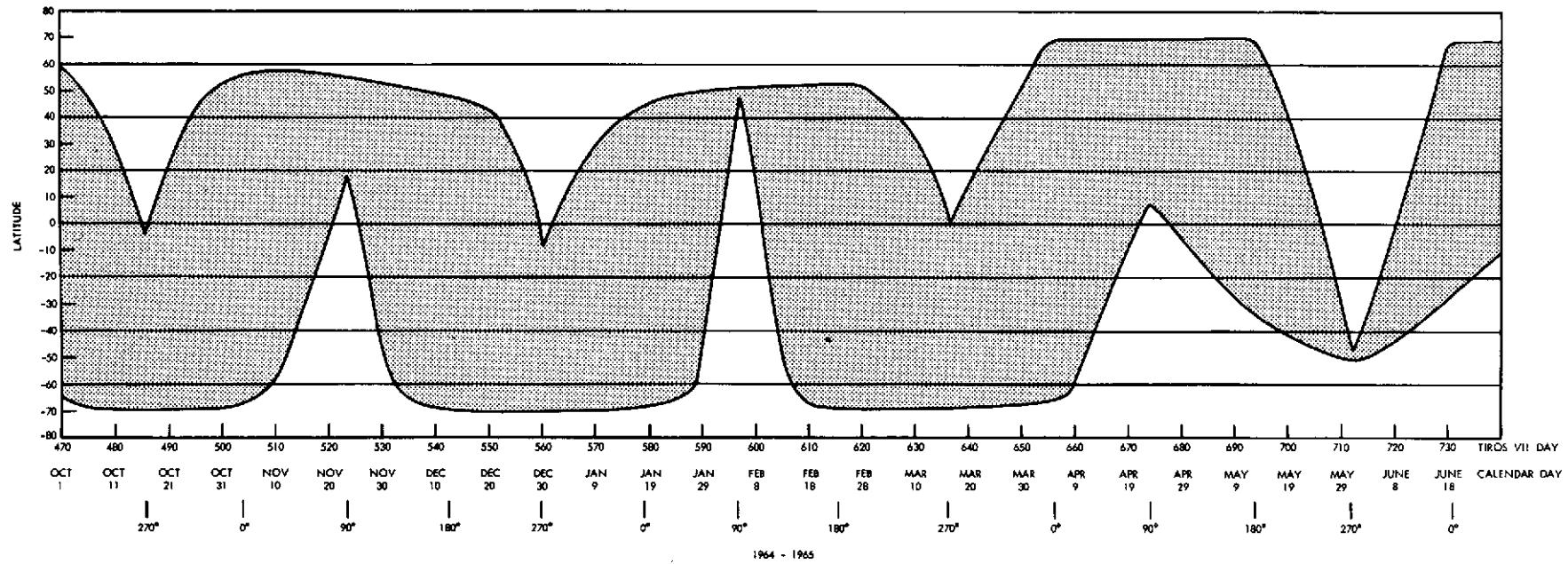


Figure 67—Solar illuminated latitudes for TIROS VII.

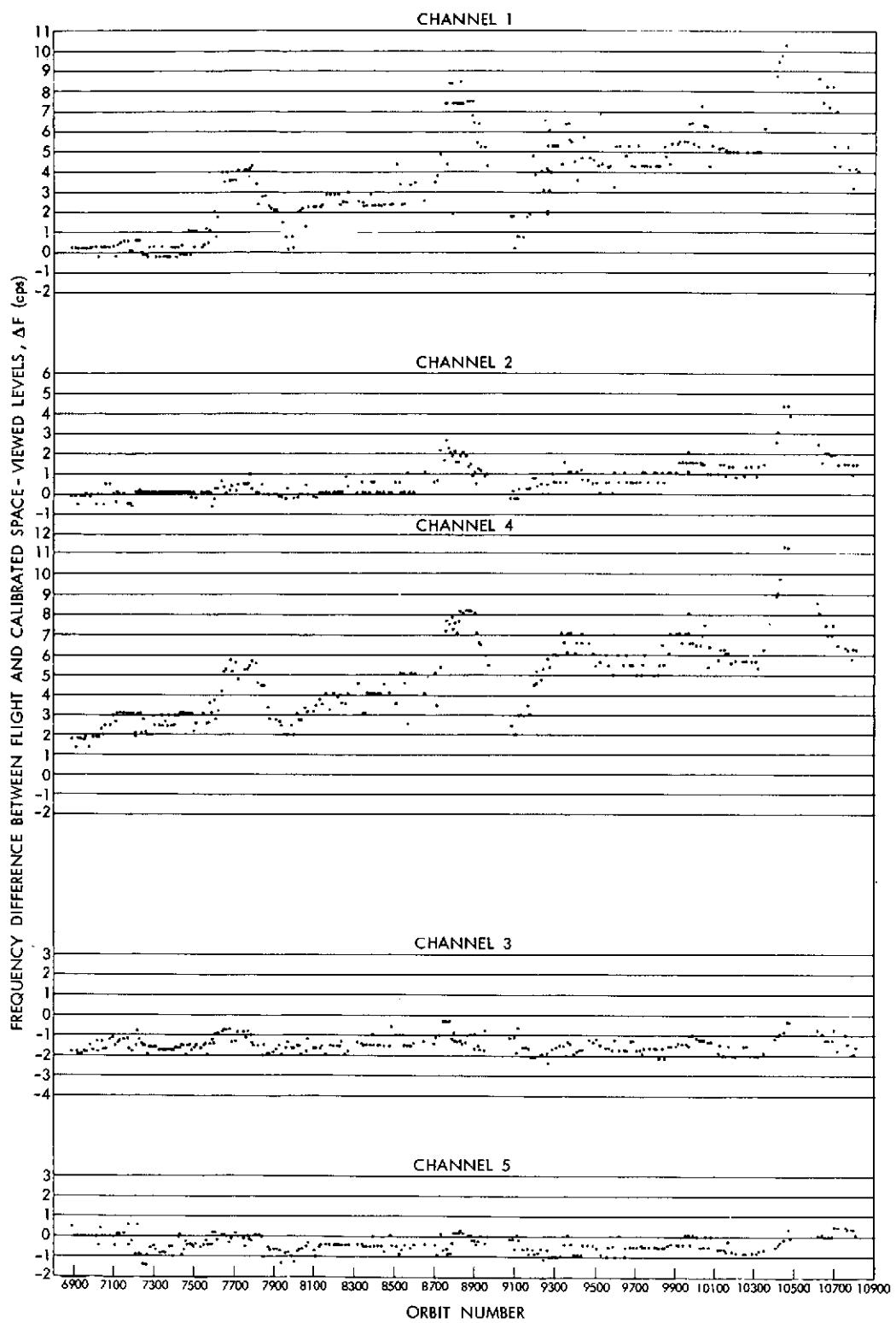


Figure 68—Frequency difference between flight and calibrated space-viewed levels vs. orbit number for channels 1 to 5.

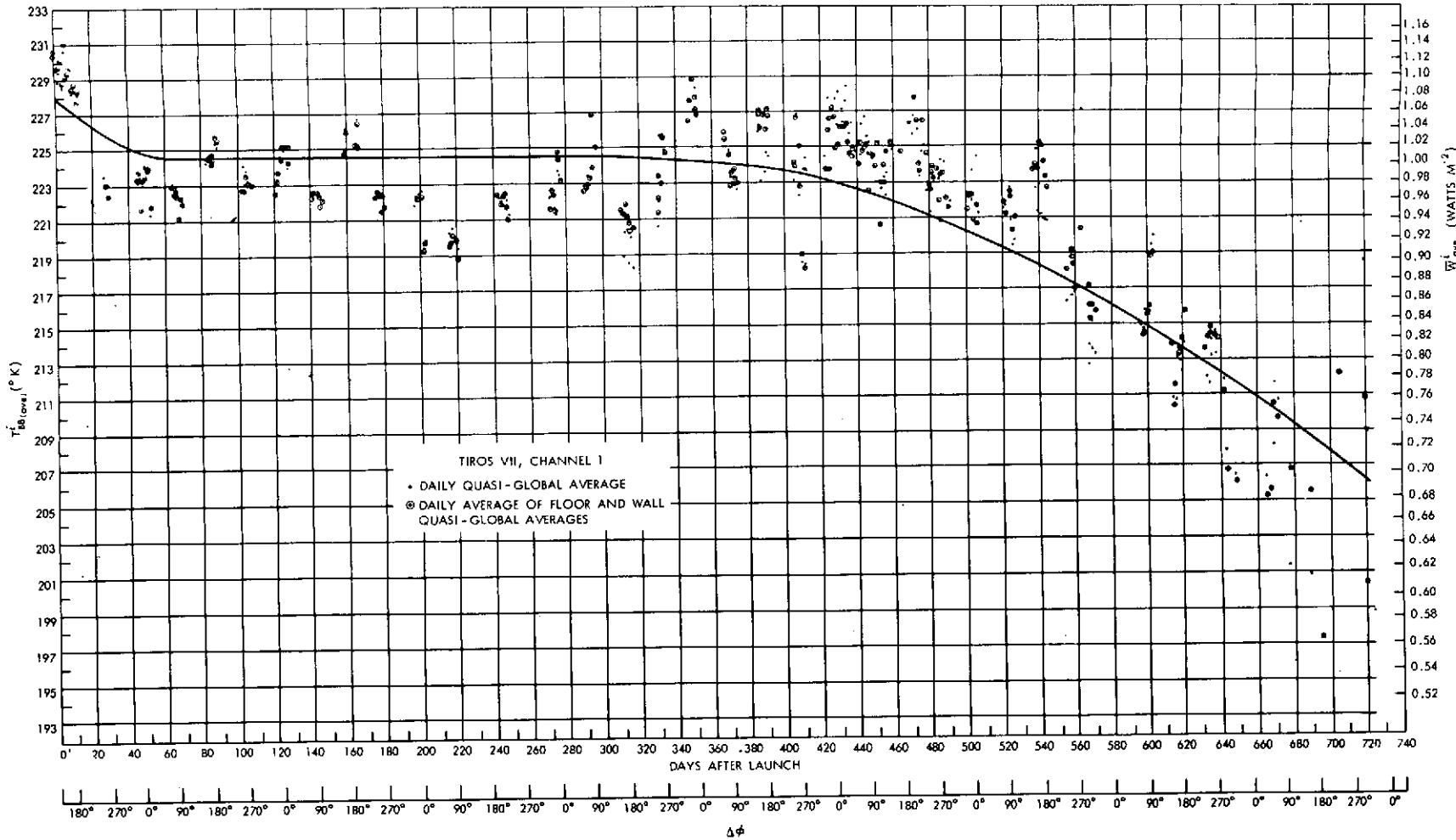


Figure 70—The average quasi-global equivalent blackbody temperature, $T_{BB(ave)}^i$, for channel 1 vs. days after launch. A scale for converting to \bar{W}_{ave}^i is shown along the right-hand ordinate. Two quasi-global averages are shown for the latitudinal range 70° N to 70° S: (1) the average of all measurements both wall and floor, and (2) the average of the separate floor and wall quasi-global averages.

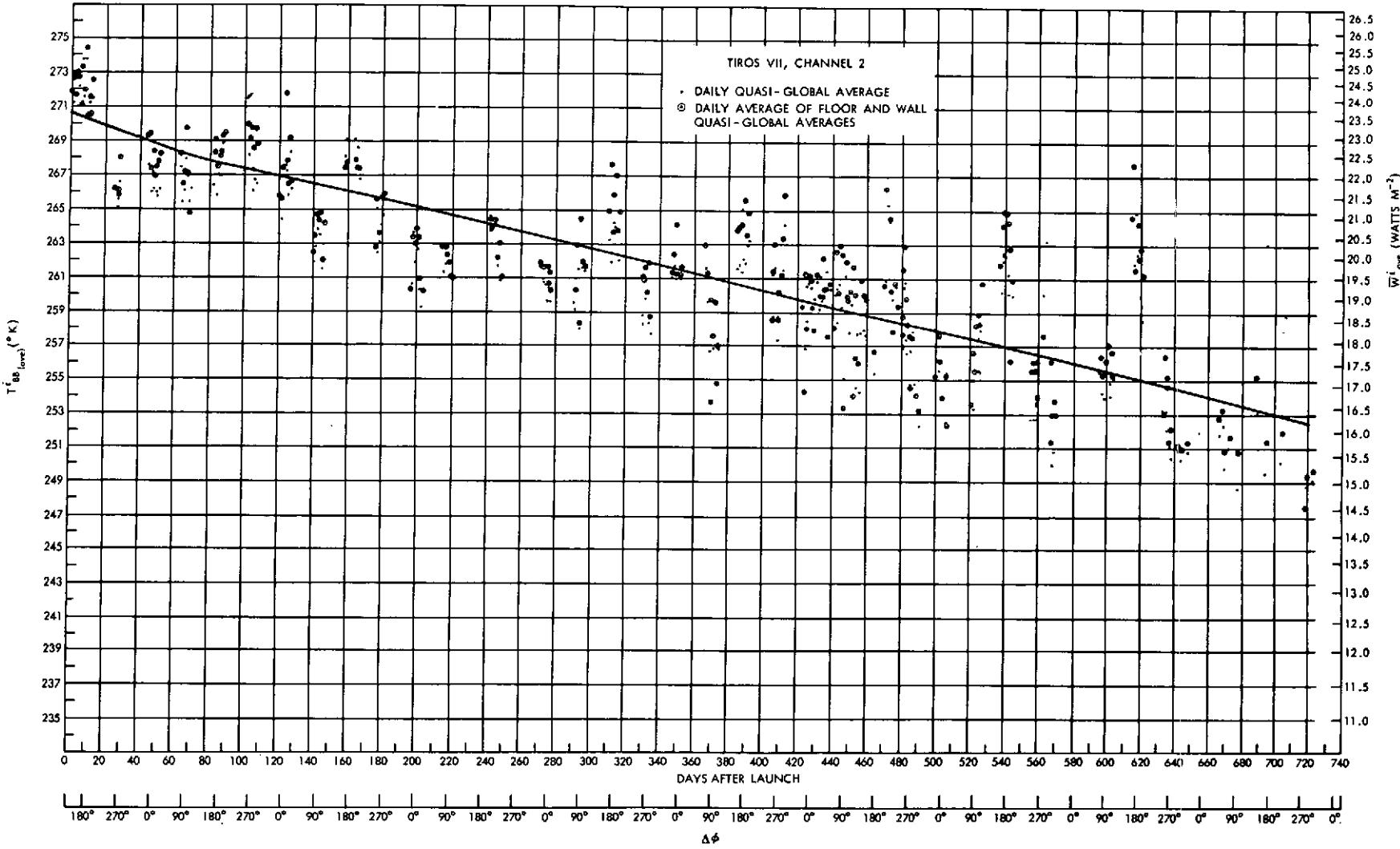


Figure 71—The average quasi-global equivalent blackbody temperature, $T_{BB(ave)}^i$, for channel 2 vs. days after launch. A scale for converting to \overline{W}_{ave}^i is shown along the right-hand ordinate. Two quasi-global averages are shown for the latitudinal range 70° N to 70° S: (1) the average of all measurements, both wall and floor, and (2) the average of the separate floor and wall quasi-global averages.

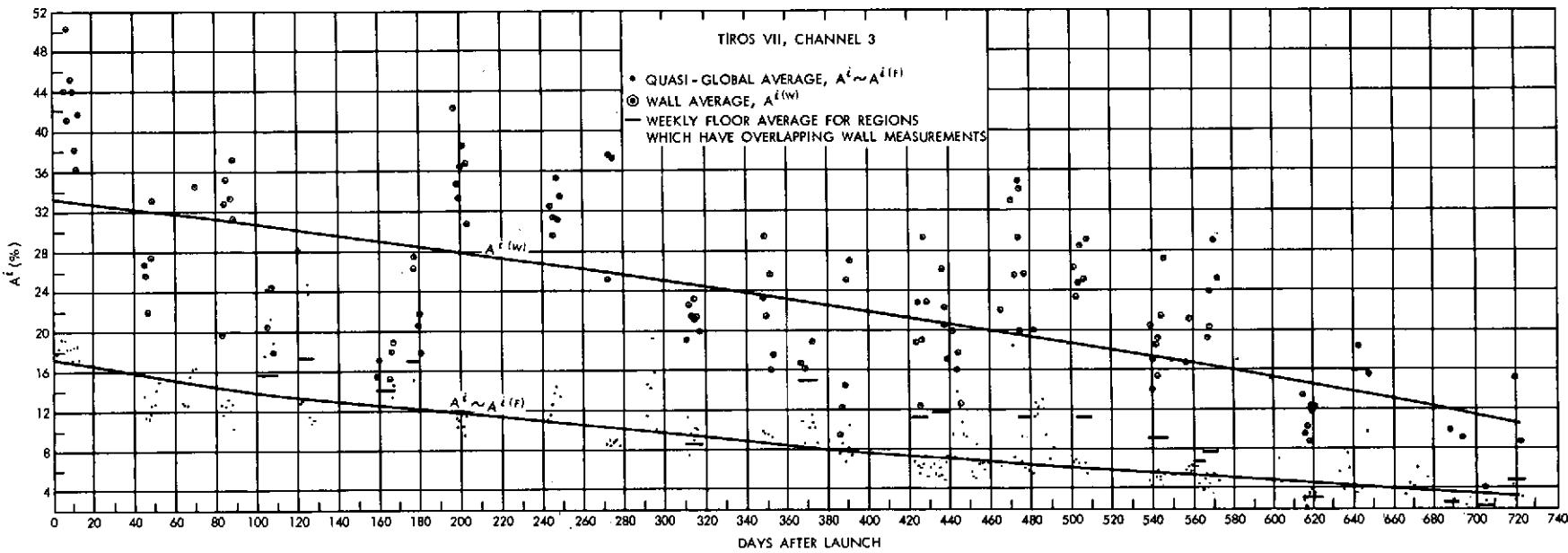


Figure 73—The average quasi-global albedo A^i and $A^{i(W)}$, in the latitudinal range 70° N to 70° S for channel 3 vs. days after launch. Since there are few wall measurements, the quasi-global averages of $A^{i(F)}$ and A^i are essentially the same. The bars represent the weekly averages of floor measurements for regions which have overlapping wall measurements.

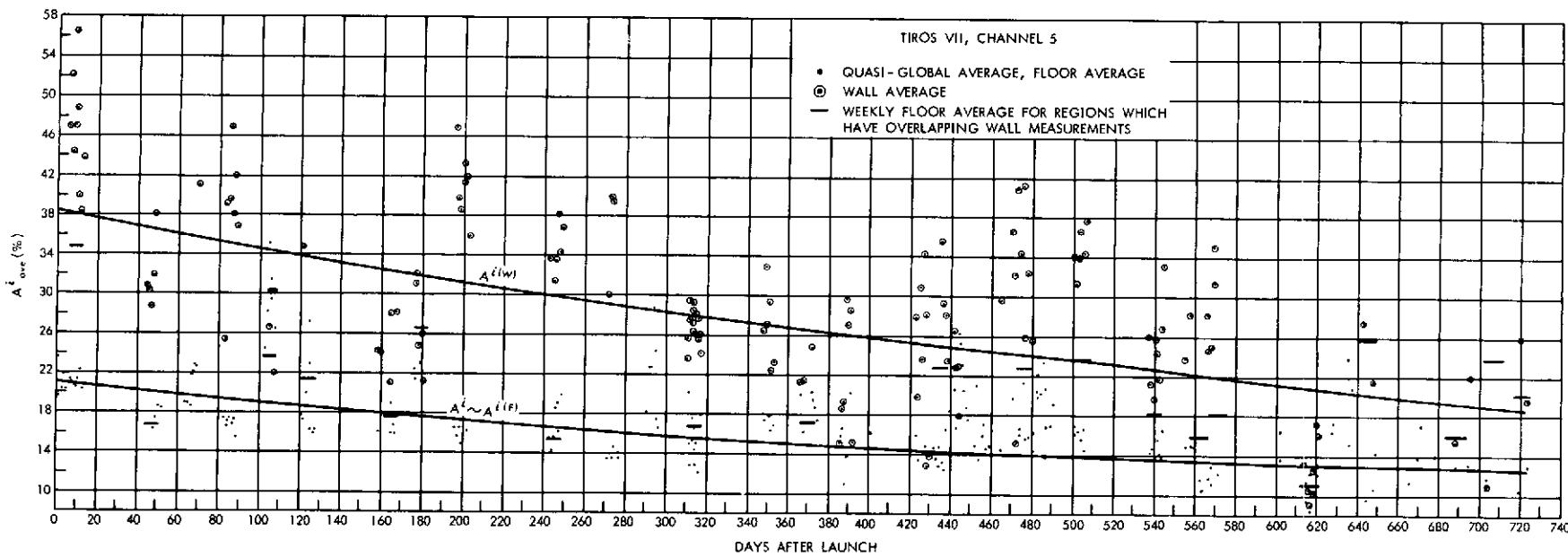
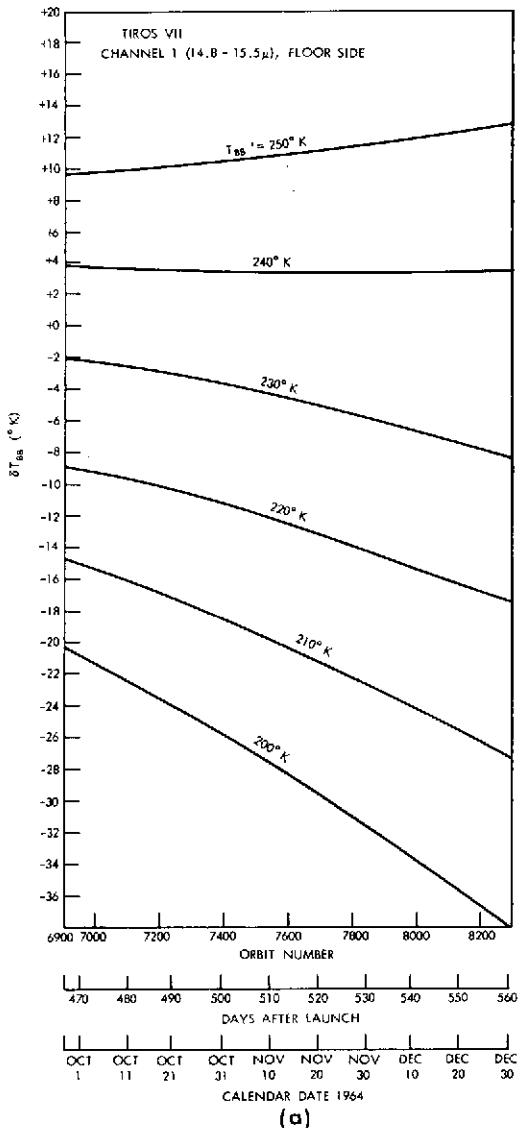
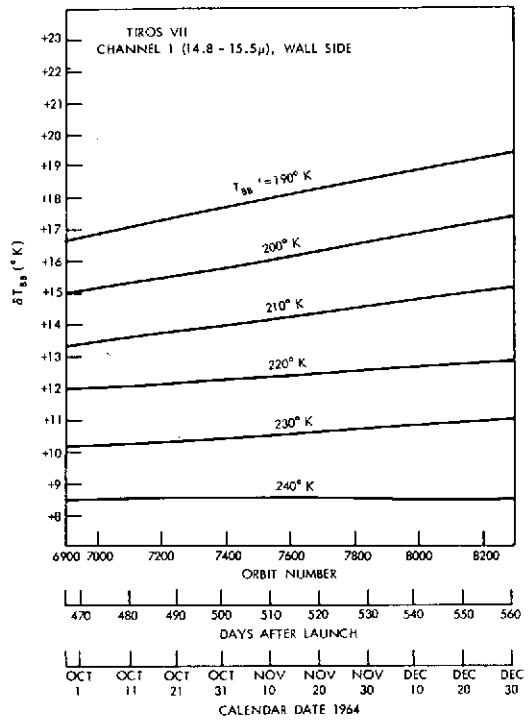


Figure 74—The average quasi-global albedo A^i and $A^{i(W)}$, in the latitudinal range of 70° N to 70° S for channel 5 vs. days after launch. Since there are few wall measurements the quasi-global averages of $A^{i(F)}$ and A^i are essentially the same. The bars represent the weekly averages of floor measurements for regions which have overlapping wall measurements.



(a)



(b)

Figure 77a—Temperature corrections δT_{BB} vs. orbit number, channel 1, floor side. An equivalent blackbody temperature measurement, T'_{BB} , should be corrected by adding the δT_{BB} value corresponding to the appropriate orbit number. (δT_{BB} includes both symmetric and asymmetric components.)

Figure 77b—Temperature corrections δT_{BB} vs. orbit number, channel 1, wall side. An equivalent blackbody temperature measurement, T'_{BB} , should be corrected by adding the δT_{BB} value corresponding to the appropriate orbit number. (δT_{BB} includes both symmetric and asymmetric components.)

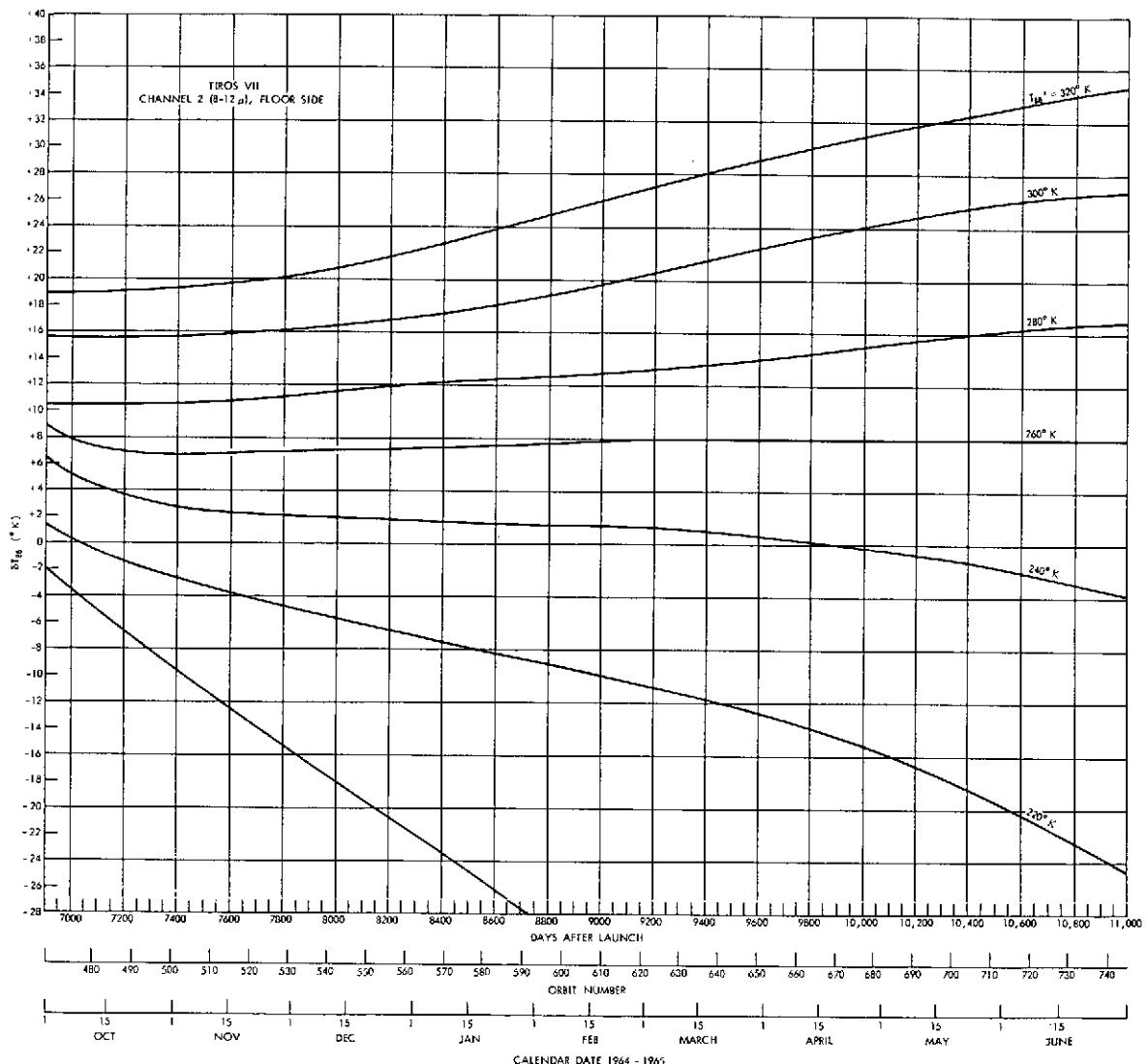


Figure 78a—Temperature corrections δT_{BB} vs. orbit number, channel 2, floor side. An equivalent blackbody temperature measurement T'_{BB} should be corrected by adding the δT_{BB} value corresponding to the appropriate orbit number. (δT_{BB} includes both symmetric and asymmetric components.)

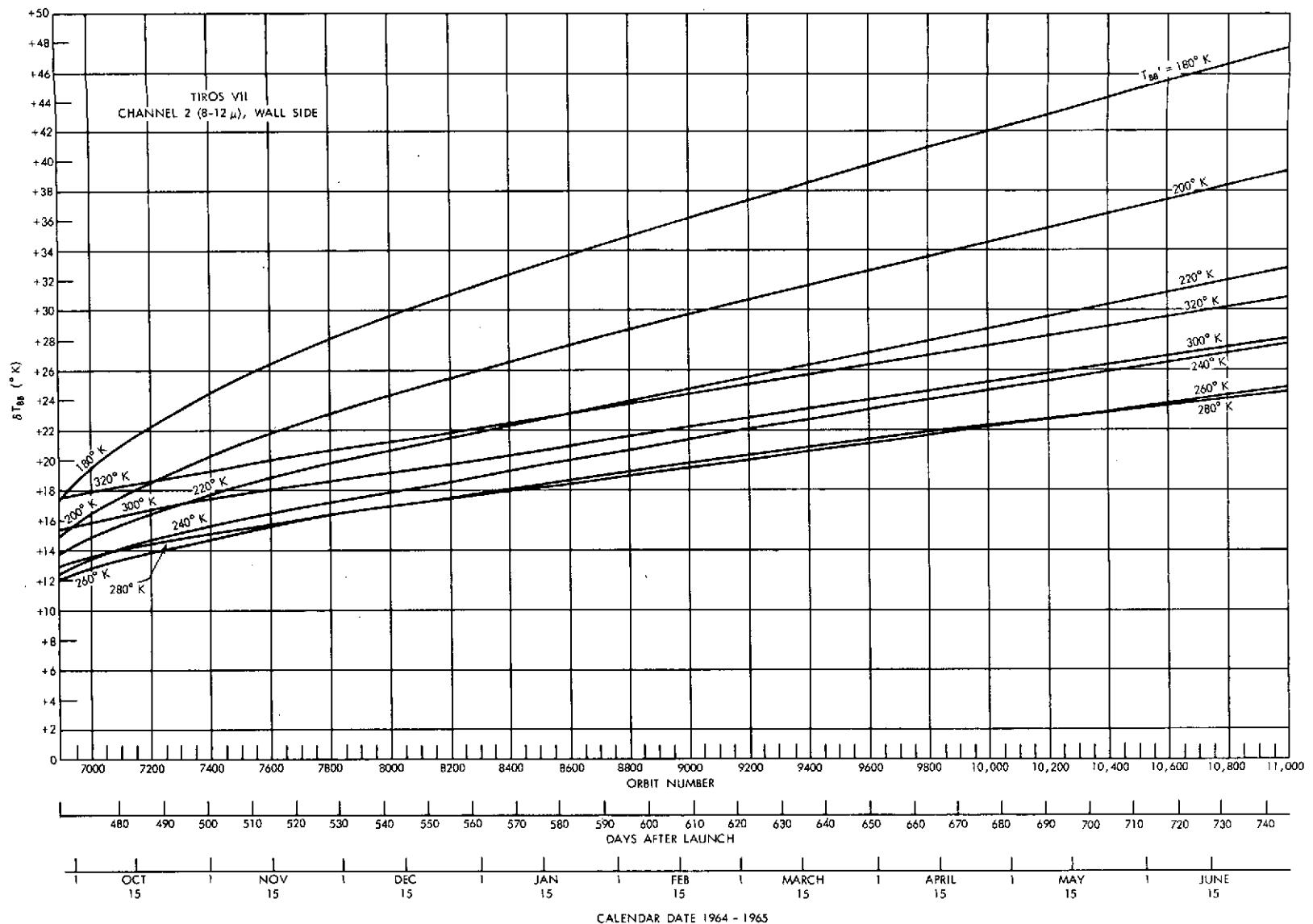


Figure 78b—Temperature corrections δT_{BB} vs. orbit number, channel 2, wall side.

An equivalent blackbody temperature measurement, T'_{BB} , should be corrected by adding the δT_{BB} value corresponding to the appropriate orbit number. (δT_{BB} contains both symmetric and asymmetric components.)

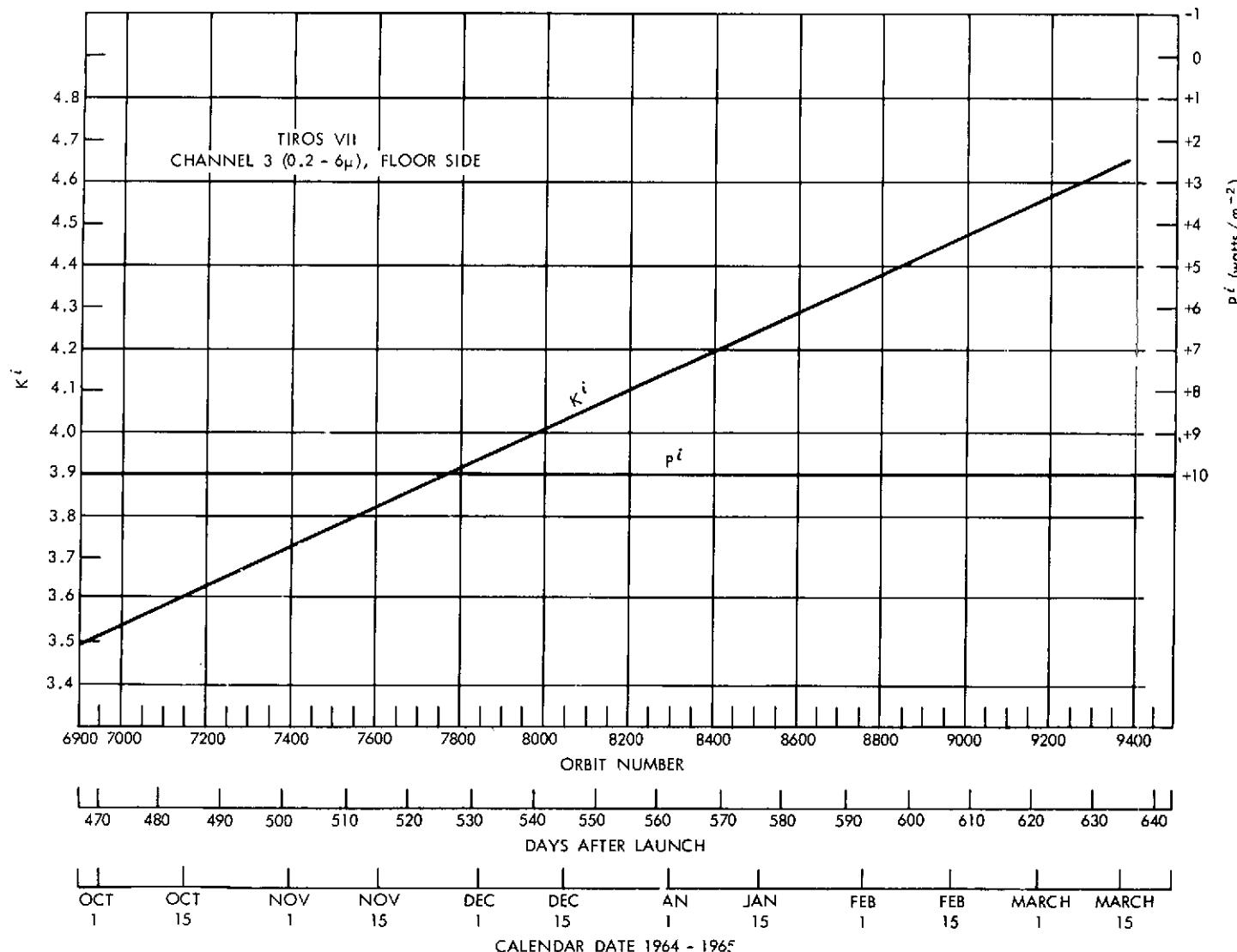


Figure 80—Normalizing parameters κ^i and ρ^i for channel 3. A measurement \bar{W}' should be corrected to yield \bar{W} by means of the equation $\bar{W} = \kappa^i(\bar{W}' + \rho^i)$.

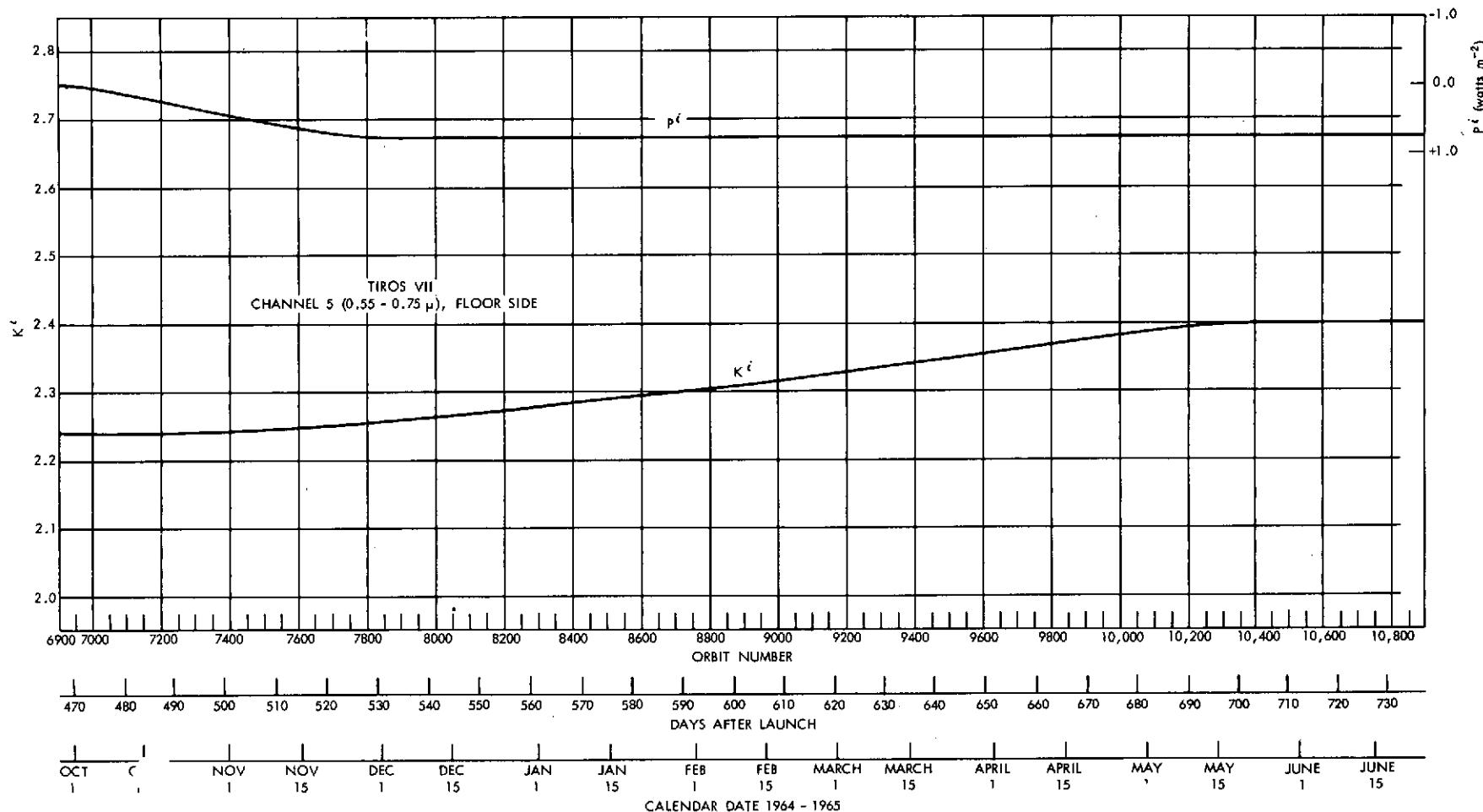


Figure 81—Normalizing parameters κ^i and ρ^i for channel 5. A measurement \bar{W}' should be corrected to yield \bar{W} by means of the equation $\bar{W} = \kappa^i(\bar{W}' + \rho^i)$.

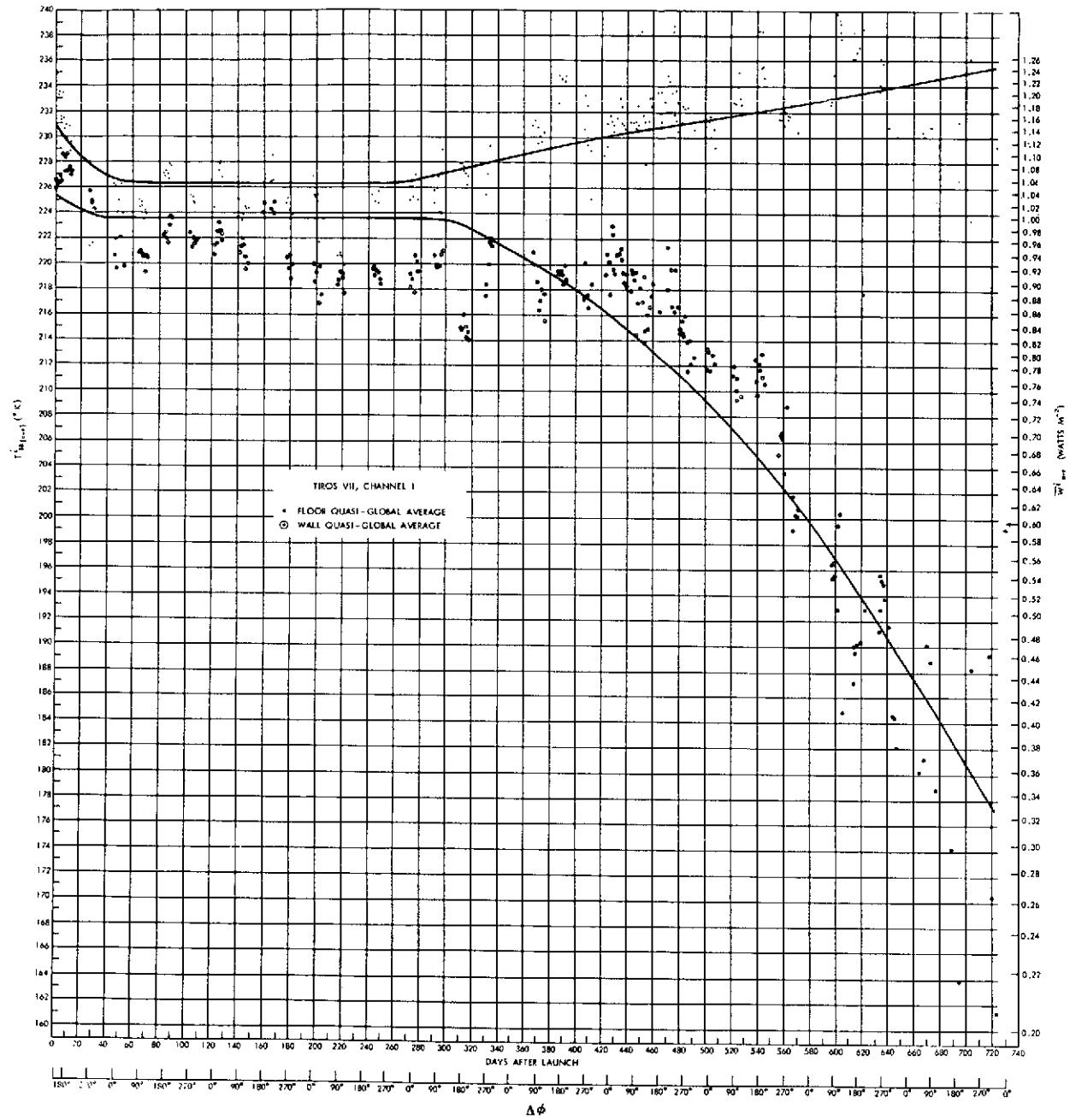


Figure 83—The average floor and wall quasi-global T_{BB}^i and \bar{W}^i values for channel 1 in latitude range 70° N to 70° S vs. days after launch.

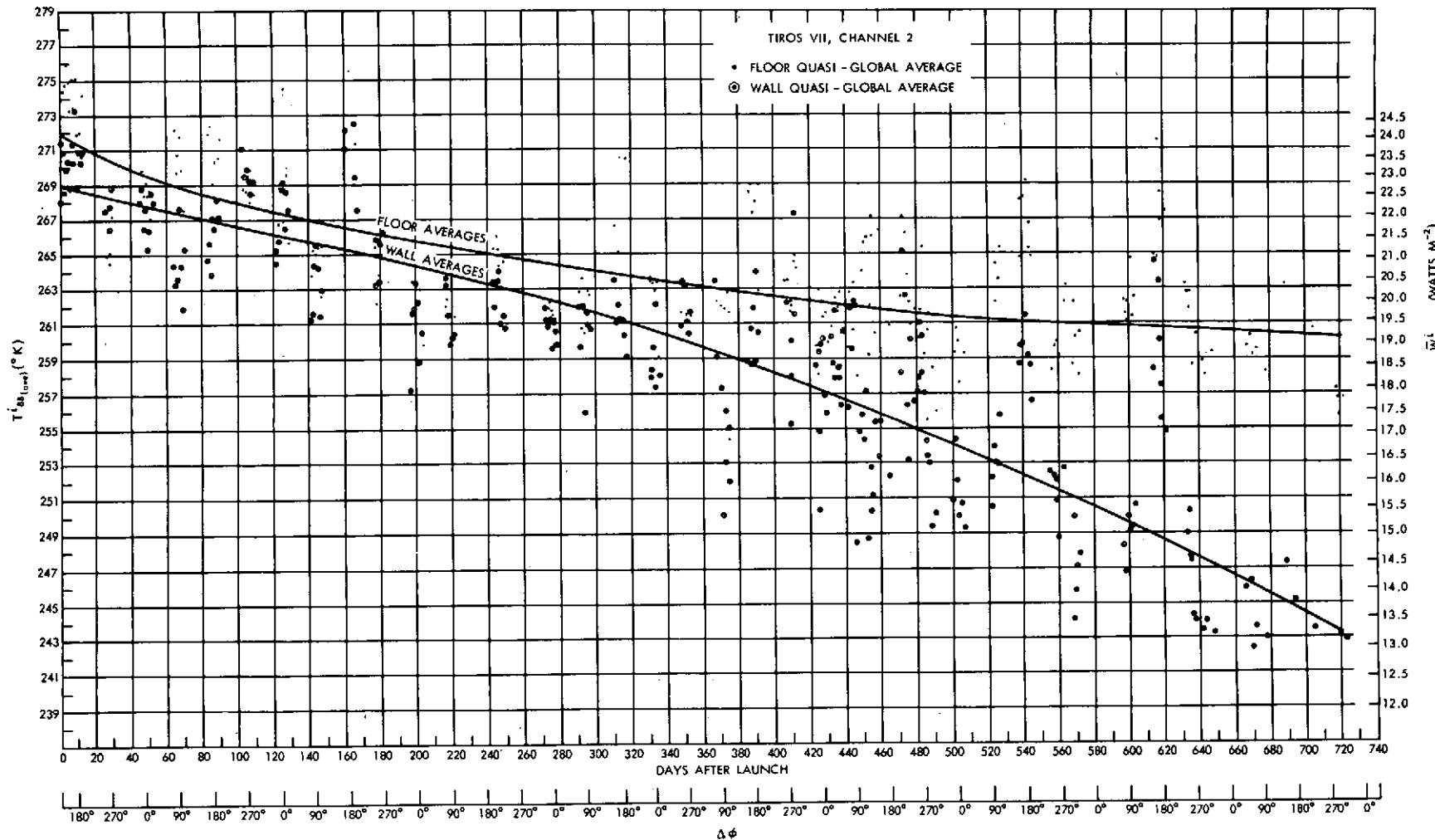


Figure 84—The average floor and wall quasi-global T_{BB}^i and \bar{W}^i values for channel 2 in latitude range 70° N to 70° S vs. days after launch.

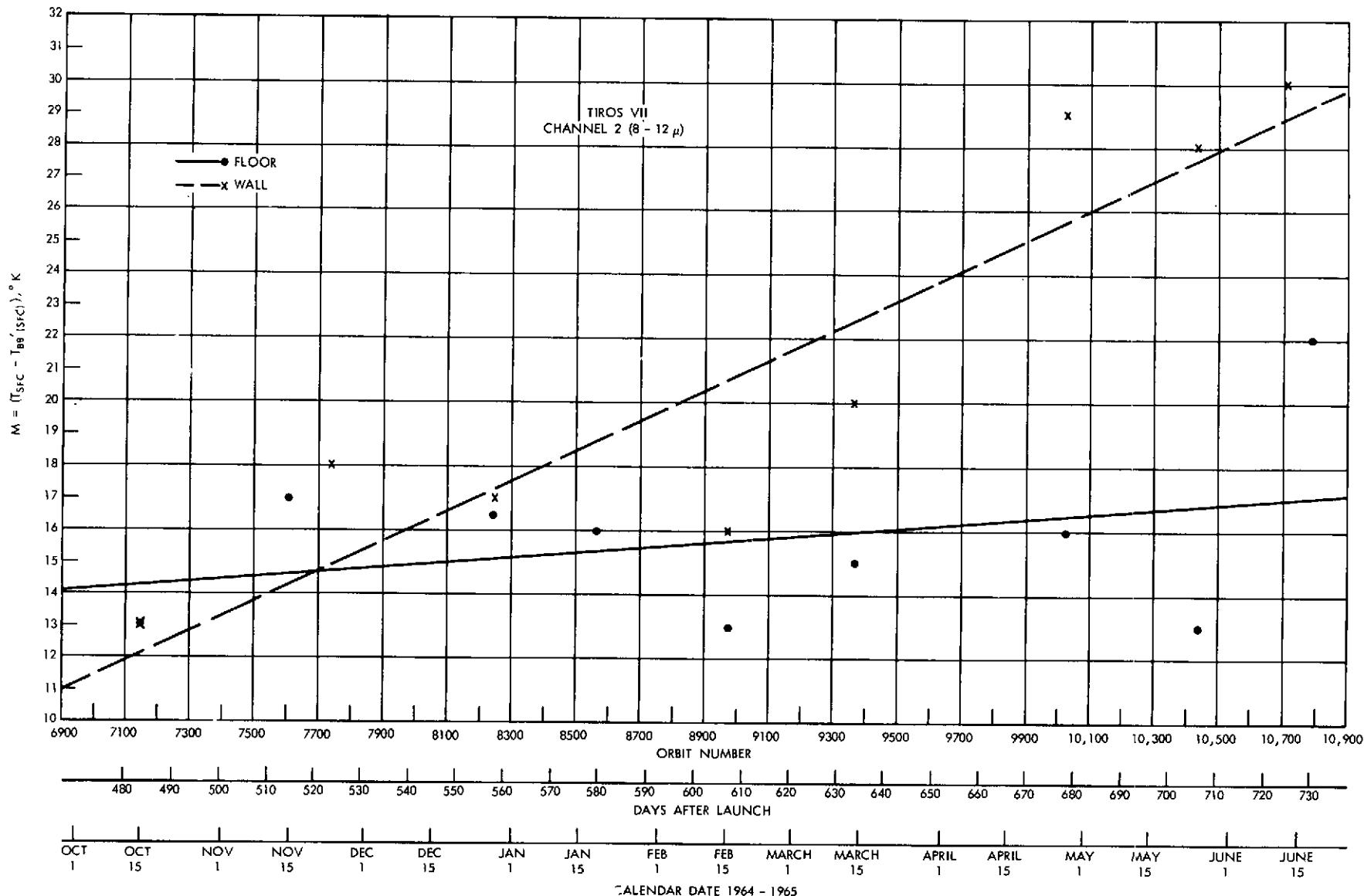
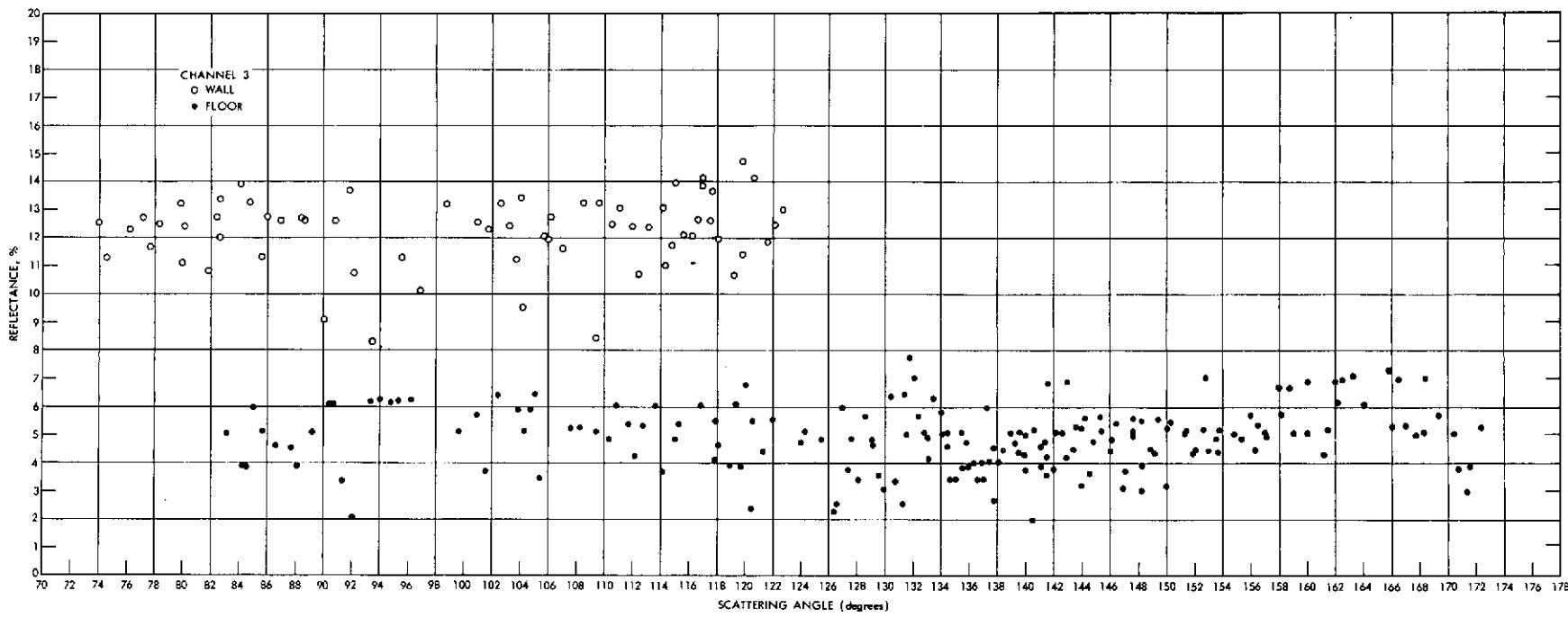


Figure 89—Deviations of channel 2 floor and wall measurements of surface temperatures (adjusted for atmospheric absorption), $T'_{\text{BB(SFC)}}$, from assumed surface temperatures from an oceanographic atlas, T'_{SFC} , vs. orbit number. Measurements were made over clear sky equatorial oceanic regions. Values of M tend to corroborate Figures 78a and b.



*Figure 90a—*Channel 3 floor and wall Sahara measurements vs. scattering angle ϕ (i.e., the angle between a ray of scattered radiation and the direction in which the incident radiation was advancing). The floor measurements are for February 10-13, 1965. During February 15-22, 1965, the satellite experienced a 105° torquing maneuver, resulting in a geometry which made possible daytime wall measurements over the Sahara Desert. The wall measurements are for February 23-28, 1965.

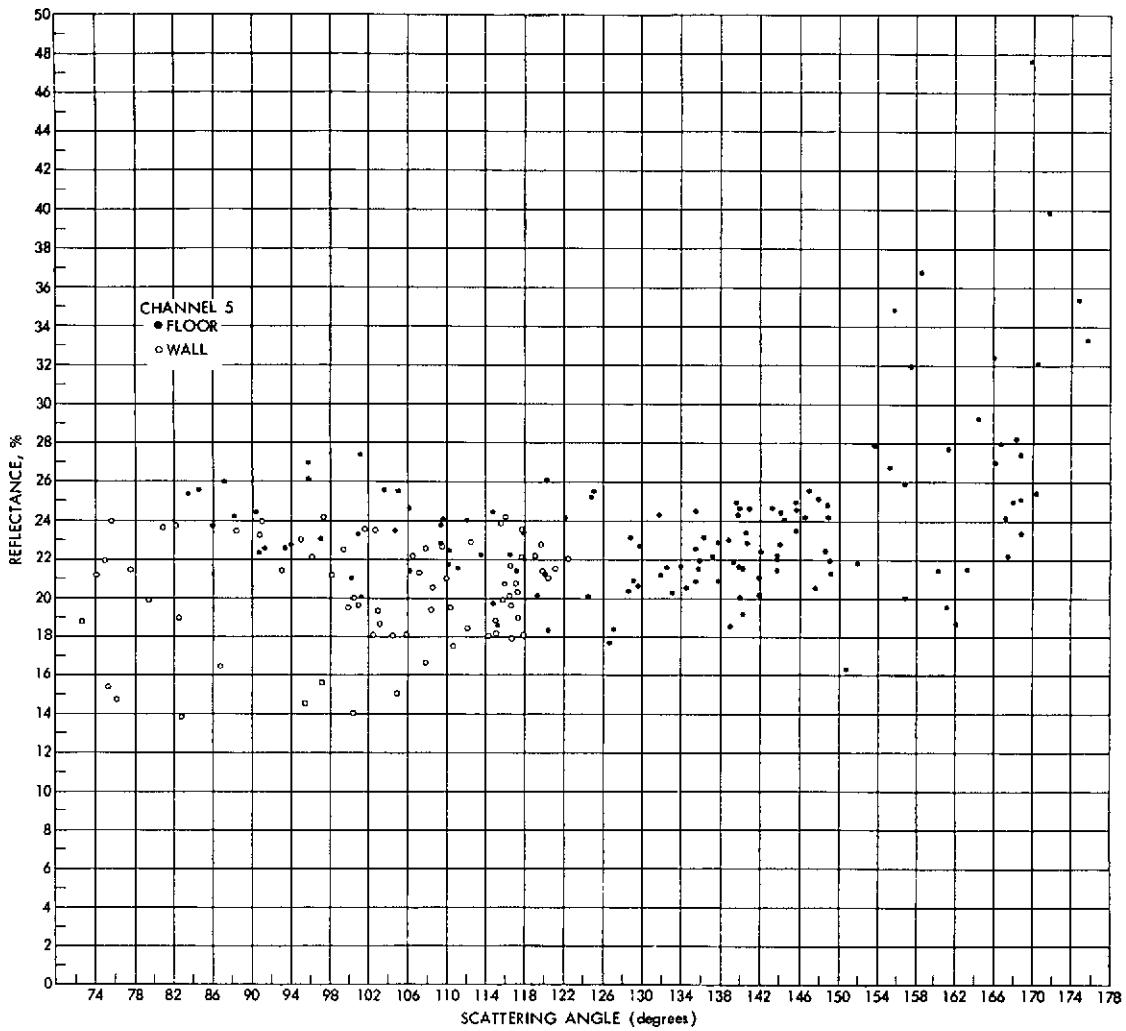


Figure 90b—Channel 5 floor and wall Sahara measurements vs. scattering angle ϕ (i.e., the angle between a ray of scattered radiation and the direction in which the incident radiation was advancing). The floor measurements are for February 10-13, 1965. During February 15-22, 1965, the satellite experienced a 105° torquing maneuver, resulting in a geometry which made possible daytime wall measurements over the Sahara Desert. The wall measurements are for February 23-28, 1965.

APPENDIX A
INDEX OF FINAL METEOROLOGICAL
RADIATION TAPES

Two hundred thirty-four tapes, containing data from 764 individual orbits of TIROS VII from October 1, 1964 to June 19, 1965, are tabulated on the following pages. The FMR tapes from this period are numbered from 789 to 1023. The nomenclature used in the Index and an example illustrating the use of the Index is given in Appendix A, Volume 1.

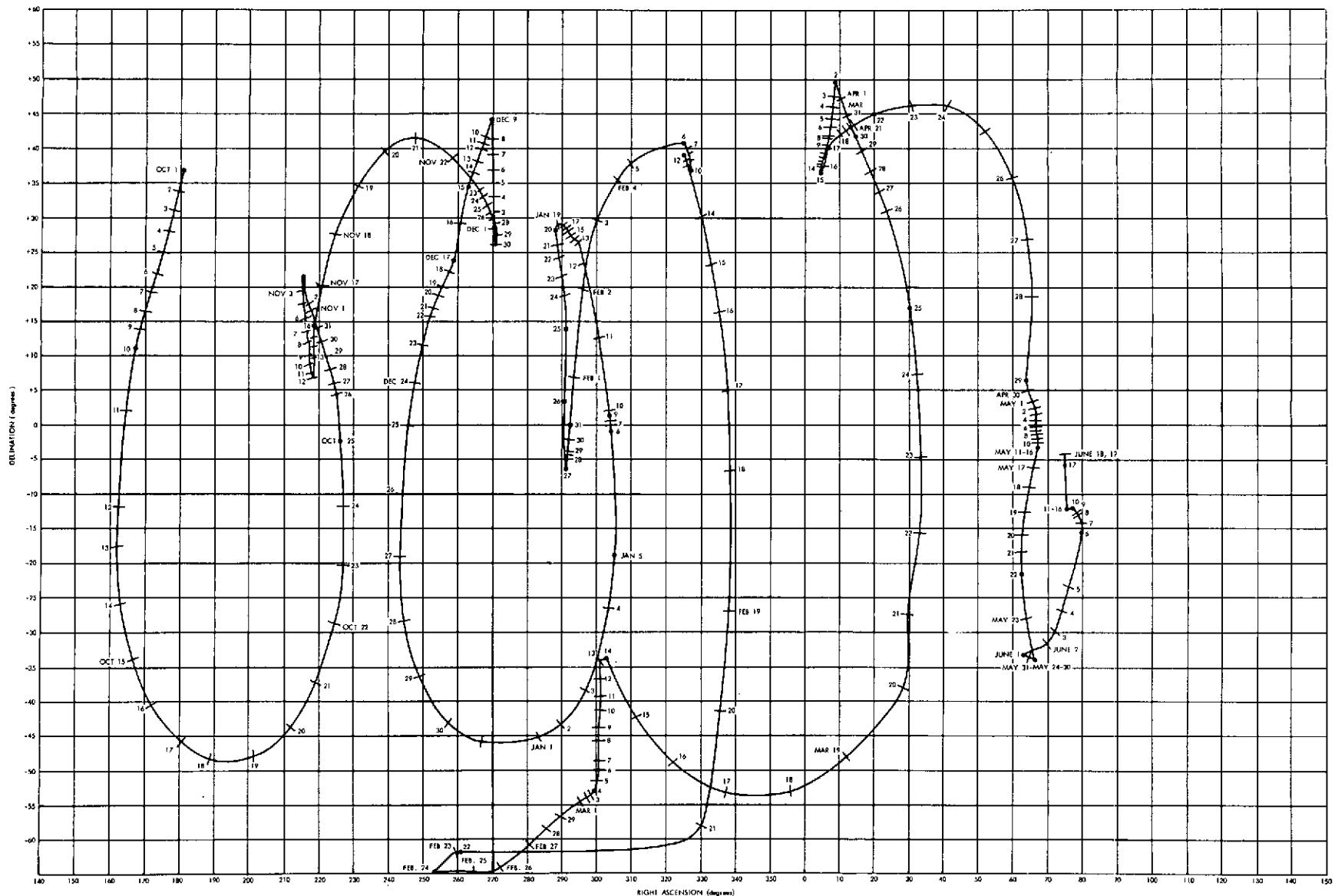


Figure A1—Observed motion of the TIROS VII spin vector on the celestial sphere.
Each subdivision represents one day. Positions at 12 GMT each day are indicated.

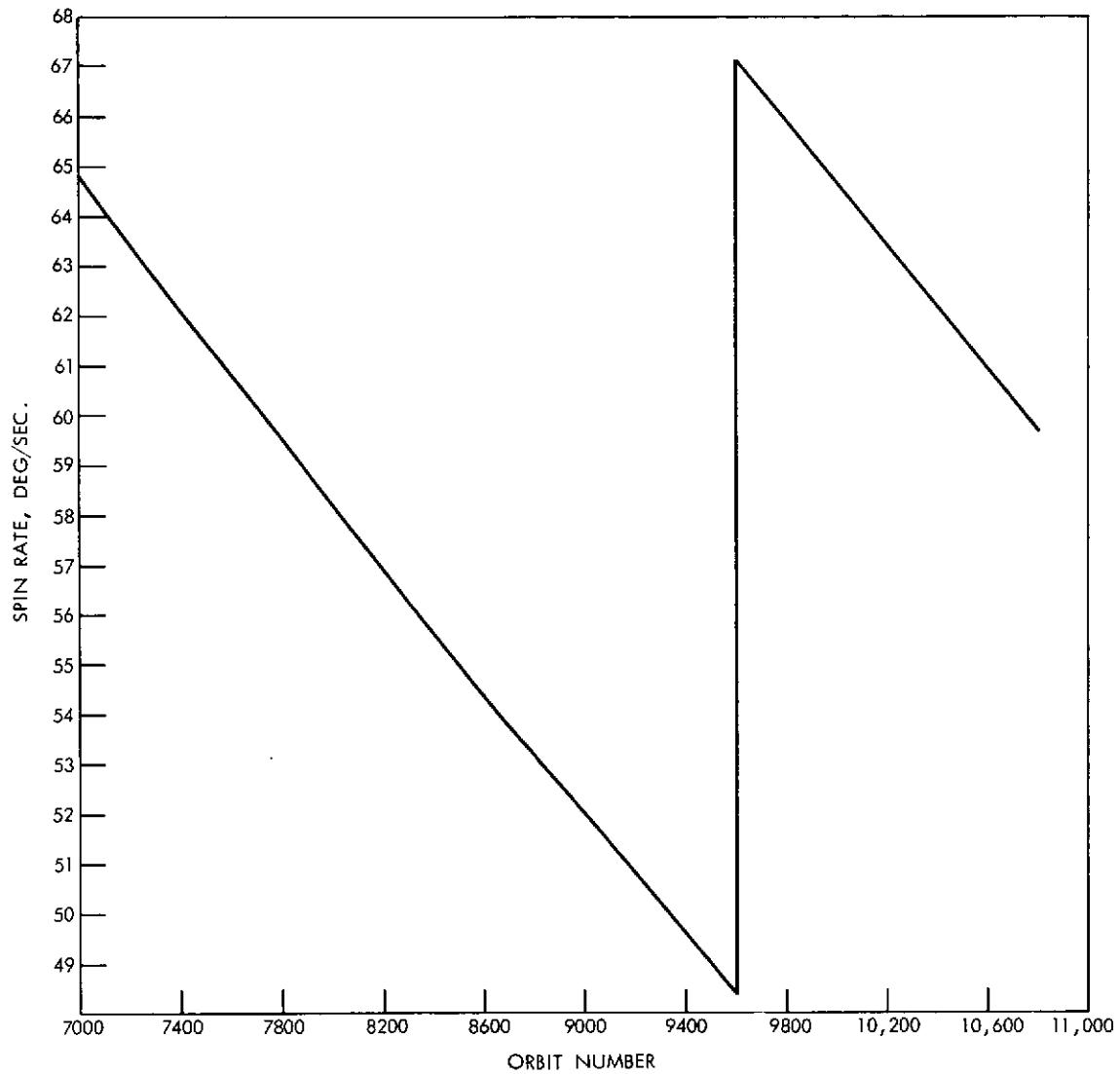


Figure A2—Time history of the TIROS VII spin rate.

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT NO.	CDA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E N D		DROPOUTS, MINUTES W/R/T ANO						
		EARTH LONGI TUOE (DEG)	HOURS MINUTES SECCNDS (GMT)	CALENDAR DATE	TIROS	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NAOIR (DEG)	TOT (MIN. AFTER ANO)		MINU -TES W/R/T ANO	HOURLY MINUTES SECCNDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-					
6566	2	114.60	14*34*33	10/ 2/64	471	33.0	179.0	-27.7	42.3	65.152	-56.6	15* 8* 3	33.5				789			
6576	2	-132.15	6*48*34	10/ 3/64	472	30.8	178.1	-28.2	43.1	65.071	-58.2	6*59* 3	10.5				790			
6579	1	153.88	11*40*47	10/ 3/64	472	30.4	177.6	-28.3	43.2	65.046	6.2	12*14* 3	33.3				790			
7006	2	-152.24	7*30*38	10/ 5/64	474	25.0	174.8	-29.6	45.2	64.827	-58.9	7*41* 3	10.4				791			
7021	2	-162.31	7*51*40	10/ 6/64	475	22.2	173.2	-30.2	46.2	64.705	-75.8	8* 5* 3	13.4				792			
7023	1	148.34	11* 6*28	10/ 6/64	475	21.9	172.9	-30.3	46.3	64.689	9.0	11*40* 3	33.6				792			
7024	1	123.66	12*43*52	10/ 6/64	475	21.7	172.8	-30.3	46.4	64.681	27.9	13*22* 3	38.2				792			
7025	2	58.99	14*21*16	10/ 6/64	475	21.5	172.8	-30.4	46.5	64.673	-45.9	14*56* 3	34.8				792			
7038	1	128.27	11*27*30	10/ 7/64	476	19.1	171.4	-31.0	47.4	64.568	23.8	12* 2* 3	34.6				793			
7040	2	88.93	14*42*18	10/ 7/64	476	18.7	171.2	-31.1	47.6	64.552	-61.3	15*19* 3	36.8				793			
7050	2	-157.77	6*56*19	10/ 8/64	477	16.8	170.2	-31.6	48.4	64.473	-53.5	7* 8* 3	11.7				794			
7053	1	128.20	11*48*32	10/ 8/64	477	16.4	169.8	-31.6	48.5	64.449	1.4	12*25* 3	36.5				794			
7079	2	-153.24	6* 0*58	10/10/64	479	11.7	167.3	-32.9	50.4	64.247	-51.3	6*11*33	10.6				795			
7082	1	122.74	10*53*10	10/10/64	479	11.3	166.9	-32.9	50.6	64.224	-49.7	11*28* 3	34.9				795			
7084	2	83.40	14* 7*59	10/10/64	479	10.1	166.8	-32.9	50.8	64.209	-39.2	14*46* 3	38.1				795			
7106	1	-69.36	1*50*50	10/12/64	481	-4.5	163.4	-26.4	55.1	64.045	-60.4	2* n* 3	9.2				796			
7111	1	127.28	9*57*51	10/12/64	481	-7.2	161.9	-24.6	55.6	64.009	-31.8	10*32* 3	34.2				796			
7120	1	-84.75	6*24*28	10/13/64	482	-13.6	162.3	-22.2	57.5	63.944	-90.0	0*43* 3	8.6				797			
7123	2	-158.84	5*26*40	10/13/64	482	-15.2	161.7	-21.3	57.9	63.923	-54.4	5*39* 3	12.4				797			
7128	2	77.79	13*33*41	10/13/64	482	-18.4	161.3	-19.6	58.6	63.888	-38.8	14*12* 3	38.4				798			
7137	2	-144.24	4*16*18	10/14/64	483	-24.1	162.3	-17.6	60.5	63.826	-71.3	4*18*33	8.3				799			
7140	3	141.73	9* 2*30	10/14/64	483	-25.6	161.9	-16.7	60.9	63.806	-54.7	9*22* 3	19.6				799			
7142	2	52.39	12*17*18	10/14/64	483	-27.0	162.1	-16.1	61.2	63.793	7.3	12*53* 3	35.8				799			
7149	1	-80.30	23*39* 7	10/14/64	483	-31.5	164.4	-14.7	62.8	63.746	-89.5	23*48* 3	8.9				800			
7150	1	-104.98	1*16*31	10/15/64	484	-31.9	164.6	-14.6	63.0	63.740	-78.3	1*27* 3	10.5				800			
7152	2	-154.32	4*31*19	10/15/64	484	-32.8	164.6	-14.2	63.3	63.727	-64.9	4*42* 3	10.7				800			

ORBIT NU.	STA	READOUT						ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
		SATELLITE EQUATORIAL ASCENDING CROSSING AT ORBITAL ANGLE (ANO)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T ANO			
		EARTH LONG -Tude (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-			
7155	1	131.65	9*23*32	10/15/64	484	-34.3	164.6	-13.5	63.7	63.707	-52.3	9*59*	3	35.5		800		
7157	2	82.31	12*36*20	10/15/64	484	-35.6	165.2	-12.9	64.0	63.694	-39.9	13*15*	3	36.7		800		
7164	1	-90.38	C* C* 8	10/16/64	485	-39.4	168.9	-11.9	65.5	63.650	-89.0	0* 9*	3	8.9		801		
7165	1	-115.05	1*37*32	10/16/64	485	-39.7	169.2	-11.8	65.7	63.644	-77.3	1*50*	3	12.5		801		
7167	2	-164.39	4*52*21	10/16/64	485	-40.4	169.6	-11.5	66.0	63.631	-62.8	5* 6*	3	13.7		801		
7169	1	146.25	8* 7* 9	10/16/64	485	-41.2	169.9	-11.2	66.3	63.619	-60.8	8*40*	3	32.9		801		
7171	2	96.91	11*21*57	10/16/64	485	-42.3	170.6	-10.7	66.5	63.607	-41.8	11*57*	3	35.1		801		
7181	2	-149.79	3*35*58	10/17/64	486	-46.0	177.5	-9.7	68.7	63.547	-13.3	3*45*	3	9.1		802		
7185	2	111.51	10* 5*35	10/17/64	486	-47.3	179.0	-9.2	69.3	63.524	-42.3	10*39*	3	33.5		802		
7186	2	86.83	11*42*59	10/17/64	486	-47.7	179.9	-8.9	69.5	63.518	-52.7	12*18*33		35.6		802		
7193	1	-85.86	23* 4*48	10/17/64	486	-49.2	186.8	-8.5	71.1	63.478	-60.2	23*13*	3	8.3		803		
7194	1	-110.53	0*42*12	10/18/64	487	-49.2	187.5	-8.6	71.3	63.473	-76.4	0*53*	3	10.9		803		
7195	2	-135.20	2*19*26	10/18/64	487	-49.2	188.1	-8.6	71.5	63.467	-74.6	2*27*	3	7.5		803		
7201	2	76.76	12* 4* 1	10/18/64	487	-50.2	192.0	-8.1	72.4	63.434	-21.3	12*42*33		38.5		803		
7208	1	-95.93	23*25*47	10/18/64	487	-49.7	199.4	-8.1	74.2	63.397	-38.5	23*35*	3	9.3		804		
7209	1	-120.60	1* 3*13	10/19/64	488	-49.5	200.1	-8.3	74.3	63.392	-74.7	1*17*	3	13.8		804		
7210	2	-145.28	2*40*38	10/19/64	488	-49.3	200.6	-8.4	74.4	63.387	-37.7	2*50*	3	9.4		804		
7215	2	91.36	10*47*38	10/19/64	488	-49.1	203.8	-8.4	75.2	63.362	-28.5	11*23*33		35.9		804		
7223	1	-106.00	23*46*51	10/19/64	488	-46.5	211.3	-8.9	77.0	63.334	-78.9	23*58*	3	11.2		805		
7224	2	-130.67	1*24*15	10/20/64	489	-46.1	211.7	-9.2	77.2	63.327	-72.5	1*32*	3	7.8		805		
7230	2	61.36	11* 8*40	10/20/64	489	-44.6	214.7	-9.6	78.1	63.285	-30.4	11*45*33		36.9		805		
7238	1	-116.00	0* 7*53	10/21/64	490	-40.4	219.9	-10.7	80.0	63.228	-74.0	0*24*	3	16.2		806		
7244	3	95.96	9*52*17	10/21/64	490	-38.1	221.5	-11.8	80.9	63.187	-33.6	10*18*33		26.3		806		
7259	2	85.89	10*13*19	10/22/64	491	-29.5	225.8	-14.7	83.8	63.082	-62.2	10*49*33		36.2		807		
7267	1	-111.46	23*12*31	10/22/64	491	-23.7	227.6	-16.5	85.7	63.027	-74.2	23*25*	3	12.5		808		
7268	2	-136.14	0*49*56	10/23/64	492	-23.0	227.5	-16.9	85.8	63.020	-71.5	0*58*	3	8.1		808		

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT No.	CDA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN	VECTOR	ATTITUDE		SPIN RATE (DEG /SEC)	BEGIN	E N D		DROPOUTS, MINUTES W/R/T ANO		FROM-	TO-			
		EARTH LONGI TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT MIN. AFTER ANO		MINU -TES W/R/T ANO	HOURLY MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-					
7271	3	145.84	5*42* 8	10/23/64	492	-21.5	227.1	-17.9	86.2	63.000	-43.0	6* 2* 3	19.9				808			
7273	3	100.50	8*56*50	10/23/64	492	-20.5	227.3	-18.3	86.5	62.986	-47.5	9*21*33	24.6				808			
7274	2	75.83	10*34*20	10/23/64	492	-19.9	227.5	-18.4	86.7	62.979	-50.3	11*13*33	39.2				808			
7281	1	-96.86	21*56* 9	10/23/64	492	-14.4	228.3	-20.1	88.3	62.932	-80.3	22* 6* 3	9.9				809			
7282	1	-121.53	23*33*47	10/23/64	492	-13.7	228.1	-20.7	88.1	62.925	-74.3	23*47* 3	13.3				809			
7283	2	-146.20	1*10*57	10/24/64	493	-13.1	227.8	-21.1	88.4	62.918	-70.2	1*20* 3	9.1				809			
7287	3	115.11	7*40*34	10/24/64	493	-11.1	227.1	-22.4	89.1	62.891	-41.5	8* 4* 3	23.5				809			
7296	1	-106.93	22*17*11	10/24/64	493	-4.6	227.1	-24.5	91.0	62.830	-78.3	22*29* 3	11.9				810			
7297	2	-131.60	23*54*35	10/24/64	493	-4.0	226.8	-25.0	91.2	62.823	-73.4	0* 2* 3	7.5				810			
7302	3	105.04	8* 1*35	10/25/64	494	-1.4	225.6	-26.8	91.8	62.790	-32.3	8*26* 3	24.5				810			
7303	2	80.37	9*38*59	10/25/64	494	-0.7	225.6	-26.9	91.9	62.783	-60.7	10*16*33	37.6				810			
7311	4	-116.99	22*38*12	10/25/64	494	4.8	225.0	-29.2	93.7	62.730	-81.3	22*51* 3	12.9				811			
7312	2	-141.66	0*15*36	10/26/64	495	4.9	224.9	-29.1	93.8	62.723	-72.1	0*25* 3	9.5				811			
7316	3	119.64	6*45*13	10/26/64	495	5.2	224.6	-28.8	94.0	62.696	-53.1	7* 9* 3	23.8				811			
7317	2	54.57	8*22*37	10/26/64	495	5.3	224.6	-28.6	94.0	62.690	-43.5	8*58*33	35.9				811			
7326	2	-127.05	22*59*14	10/26/64	495	6.3	224.1	-27.6	94.6	62.630	-81.2	23* 9* 3	9.8				812			
7327	2	-151.72	0*36*38	10/27/64	496	6.4	224.0	-27.5	94.7	62.624	-80.8	0*47* 3	10.4				812			
7329	3	158.84	3*51*26	10/27/64	496	6.5	223.8	-27.4	94.8	62.611	-63.2	4*10* 3	18.6				812			
7332	2	84.83	8*43*38	10/27/64	496	6.8	223.7	-27.0	94.8	62.591	-43.3	9*20*33	36.9				812			
7339	1	-87.86	20* 5*27	10/27/64	496	7.6	223.4	-26.2	95.3	62.545	-86.8	20*14* 3	8.6				813			
7340	1	-112.54	21*42*51	10/27/64	496	7.8	223.3	-26.1	95.4	62.539	-75.6	21*55* 3	12.2				813			
7344	3	148.77	4*12*27	10/28/64	497	8.1	222.9	-25.8	95.6	62.512	-63.1	4*32* 3	19.6				813			
7354	1	-97.93	20*26*28	10/28/64	497	9.3	222.4	-24.7	96.2	62.448	-88.2	20*37* 3	10.6				814			
7358	3	163.37	2*56* 5	10/29/64	498	9.7	221.9	-24.4	96.4	62.422	-52.2	3*14* 3	18.0				814			
7359	3	138.70	4*33*29	10/29/64	498	9.8	221.8	-24.3	96.4	62.415	-66.1	4*54* 3	20.6				814			
7369	1	-108.00	20*47*30	10/29/64	498	11.1	221.3	-23.2	97.1	62.351	-77.3	20*59* 3	11.6				815			

ORBIT No.	CDA STA	READOUT				ORBIT				TIME INTERVAL OF FILE ON FMR TAPE				FMR TAPE REEL No.	
		SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NUDE (ANO)				SPIN VECTOR ATTITUDE				BEGIN	E N D		DROPOUTS, MINUTES W/R/T ANO		
		EARTH LNGN -TODE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIKOS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)	SPIN RATE (DEG /SEC)	MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM- TO-	
7371	2	-157.34	0* 2*18	10/30/64	499	11.3	221.0	-23.1	97.2	62.338	-61.5	0*14*33	12.3		815
7373	3	153.30	3*17* 6	10/30/64	499	11.5	220.8	-23.0	97.3	62.326	-62.3	3*36*33	19.5		815
7374	3	128.63	4*54*31	10/30/64	499	11.6	220.8	-22.9	97.3	62.319	-66.1	5*16*33	22.1		815
7376	2	79.29	8* 9*18	10/30/64	499	11.8	220.7	-22.6	97.4	62.307	-51.9	8*47*33	38.3		815
7383	1	-55.40	19*31* 7	10/30/64	499	12.7	220.3	-22.1	0.4	62.262	-86.5	19*41* 3	9.9		816
7385	2	-142.74	22*45*55	10/30/64	499	13.0	220.1	-21.9	0.5	62.250	-64.0	22*55* 3	9.1		816
7390	2	93.89	6*52*56	10/31/64	500	13.7	219.6	-21.6	0.8	62.218	-60.5	7*28*33	35.6		816
7398	1	-103.47	19*52* 8	10/31/64	500	14.9	219.0	-21.0	1.3	62.168	-77.4	20* 3* 3	10.9		817
7403	3	123.16	3*59* 9	11/ 1/64	501	15.6	218.3	-20.9	1.5	62.136	-51.1	4*20*33	21.4		817
7405	2	63.82	7*13*57	11/ 1/64	501	15.9	218.2	-20.7	1.6	62.124	-35.0	7*50*33	36.6		817
7412	1	-68.87	18*35*46	11/ 1/64	501	17.0	217.7	-20.1	2.1	62.080	-86.3	18*45* 3	9.3		818
7414	2	-138.22	21*50*34	11/ 1/64	501	17.3	217.3	-20.0	2.2	62.068	-56.5	21*59* 3	8.5		818
7417	3	147.76	2*42*46	11/ 2/64	502	17.7	217.0	-19.9	2.3	62.049	-67.3	3* 3* 3	20.3		818
7418	3	123.49	4*20*10	11/ 2/64	502	17.8	216.9	-19.9	2.4	62.043	-63.1	4*42*33	22.4		818
7419	2	98.42	5*57*34	11/ 2/64	502	18.0	216.9	-19.8	2.5	62.037	-62.5	6*31*33	34.0		818
7427	1	-58.94	16*56*47	11/ 2/64	502	19.2	216.3	-19.0	3.0	61.988	-79.5	19* 7* 3	10.3		819
7429	2	-148.29	22*11*35	11/ 2/64	502	19.5	216.0	-19.0	3.1	61.976	-63.0	22*22* 3	10.5		819
7431	3	162.35	1*26*23	11/ 3/64	503	19.8	215.7	-19.0	3.2	61.963	-62.0	1*45*33	19.2		819
7432	3	127.68	3* 3*47	11/ 3/64	503	19.9	215.6	-18.9	3.2	61.957	-65.0	3*24*33	20.8		819
7433	3	113.61	4*41*12	11/ 3/64	503	20.1	215.6	-18.8	3.3	61.951	-64.9	5* 4*33	23.4		819
7434	2	88.34	6*18*36	11/ 3/64	503	20.2	215.6	-18.7	3.4	61.945	-48.4	6*54*33	36.0		819
7443	2	-133.70	20*55*12	11/ 3/64	503	21.2	215.1	-17.9	3.9	61.890	-77.9	21* 3* 3	7.9		820
7446	3	152.24	1*47*25	11/ 4/64	504	20.8	215.3	-16.9	3.9	61.872	-54.4	2* 7*33	20.1		820
7447	3	127.61	3*24*49	11/ 4/64	504	20.7	215.3	-16.6	3.9	61.866	-65.2	3*46*33	21.7		820
7449	2	78.27	6*39*37	11/ 4/64	504	20.4	215.3	-16.1	3.9	61.854	-51.2	7*17*33	37.9		820
7456	1	-94.42	18* 1*26	11/ 4/64	504	19.2	215.3	-14.0	3.9	61.812	-86.5	18*11*33	10.1		821

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
URBIT NU.	COA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN	VECTOR	ATTITUDE		SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T ANO					
		EARTH LONGI TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEGI)	RIGHT ASCEN -SION (DEGI)	MINI -MUM NADIR (DEGI)	TOT (MIN. AFTER ANO)		MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-					
7461	3	142.21	2* 6*26	11/ 5/64	505	18.5	215.5	-12.4	3.9	61.782	-30.2	2*29*33	21.1				821			
7475	3	156.81	0*52* 3	11/ 6/64	506	16.4	215.9	-8.2	3.9	61.698	-50.6	1*12* 3	20.0				822			
7477	3	107.47	4* 6*51	11/ 6/64	506	16.1	215.9	-7.6	3.9	61.686	-54.4	4*31* 3	24.2				822			
7485	1	-89.89	17* 6* 4	11/ 6/64	506	14.9	216.0	-5.2	3.9	61.639	-89.3	17*14*33	8.5				823			
7490	3	146.75	1*13* 5	11/ 7/64	507	14.3	216.3	-3.6	4.0	61.610	-16.8	1*33* 3	20.0				823			
7492	2	57.40	4*27*53	11/ 7/64	507	14.0	216.4	-3.0	4.0	61.598	-53.7	5* 2* 3	34.2				823			
7500	1	-99.96	17*27* 5	11/ 7/64	507	12.9	216.5	-6.6	4.0	61.551	-79.1	17*38* 3	11.0				824			
7502	2	-149.30	20*41*54	11/ 7/64	507	12.7	216.6	0.1	4.1	61.539	-63.2	20*52* 3	10.2				824			
7504	3	161.35	23*56*42	11/ 7/64	507	12.5	216.8	0.7	4.1	61.528	-63.9	0*15* 3	18.4				824			
7507	2	67.33	4*48*54	11/ 8/64	508	12.1	216.9	1.6	4.2	61.510	-45.3	5*25* 3	36.2				824			
7516	2	-134.70	19*25*31	11/ 8/64	508	11.0	217.1	4.3	4.3	61.458	-69.9	19*34* 3	8.5				825			
7519	1	151.28	0*17*43	11/ 9/64	509	10.7	217.3	5.2	4.4	61.441	-40.4	0*37*33	19.8				825			
7522	2	77.26	5* 9*55	11/ 9/64	509	10.3	217.4	6.2	4.4	61.424	-27.7	5*47*33	37.6				825			
7529	1	-95.43	16*31*44	11/ 9/64	509	9.5	217.6	8.2	4.5	61.384	-87.1	16*42* 3	10.3				826			
7531	2	-144.76	19*46*32	11/ 9/64	509	9.3	217.7	8.8	4.6	61.372	-63.5	19*56* 3	9.5				826			
7536	2	91.85	3*53*32	11/10/64	510	8.8	218.0	10.4	4.7	61.344	-58.0	4*29* 3	35.5				826			
7545	2	-130.18	18*30* 9	11/10/64	510	7.9	218.2	12.9	4.8	61.293	-69.2	18*37*33	7.4				827			
7548	3	155.80	23*22*21	11/10/64	510	7.8	218.3	13.7	4.9	61.276	-53.3	23*41*33	19.2				827			
7551	2	81.78	4*14*33	11/11/64	511	7.5	218.3	14.5	5.0	61.259	-43.4	4*51* 3	36.5				827			
7558	1	-90.91	15*36*22	11/11/64	511	7.0	218.3	16.2	5.2	61.219	-87.8	15*46* 3	9.7				828			
7560	2	-140.25	18*51*10	11/11/64	511	6.9	218.3	16.7	5.3	61.208	-64.1	19* 0* 3	8.9				828			
7562	1	170.40	22* 5*58	11/11/64	511	6.8	218.4	17.2	5.3	61.195	-65.1	22*36* 3	30.1				828			
7564	3	121.06	1*20*46	11/12/64	512	6.7	218.5	17.7	5.4	61.180	-27.3	1*43* 3	22.3				828			
7565	3	96.38	2*58*11	11/12/64	512	6.8	218.4	18.0	5.4	61.173	-63.8	3*24* 3	25.9				828			
7573	1	-100.57	15*57*23	11/12/64	512	7.7	218.5	19.1	6.0	61.115	-87.6	16* 8* 3	10.7				829			
7575	2	-150.32	19*12*11	11/12/64	512	7.9	218.4	19.4	6.1	61.101	-63.0	19*23* 3	10.9				829			

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT NU.	CUA STA	SATELLITE EQUATOR CROSSING AT CRITICAL ASCENDING NODE (ANO)				SPIN DECLI -NA -TION (DEG)	VECTOR RIGHT ASCEN -SION (DEG)	ATTITUDE MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)	SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T ANO					
		EARTH LONGI -Tude (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY						MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-					
7580	2	66.32	3*19*12	11/13/64	513	8.4	218.4	20.0	6.5	61.066	-50.6	3*55*33	36.4					829		
7589	2	-135.72	17*55*48	11/13/64	513	9.3	218.4	21.2	7.1	61.005	-70.1	18* 5* 3	9.3					830		
7592	3	150.26	22*48* 0	11/13/64	513	9.6	218.4	21.6	7.3	60.986	-53.8	23* 7*33	19.6	-				830		
7594	3	100.92	2* 2*49	11/14/64	514	9.9	218.4	21.8	7.4	60.973	-54.7	2*28*33	25.7					830		
7604	2	-145.78	18*16*49	11/14/64	514	10.9	218.5	23.1	8.2	60.909	-70.2	18*27* 3	10.2					831		
7606	1	164.86	21*31*38	11/14/64	514	11.1	218.4	23.3	8.3	60.896	-63.8	22* 2*33	30.9					831		
7609	2	90.85	2*23*50	11/15/64	515	11.4	218.5	23.6	8.5	60.877	-46.8	2*59* 3	35.2					831		
7618	2	-121.18	17* 0*26	11/15/64	515	12.5	218.6	24.7	9.2	60.822	-63.4	17* 8* 3	7.6					832		
7621	3	154.79	21*52*39	11/15/64	515	12.8	218.6	25.0	9.4	60.805	-55.4	22*11*33	18.9					832		
7624	2	80.78	2*44*51	11/16/64	516	13.1	218.6	25.3	9.6	60.787	-43.8	3*22* 3	37.2					832		
7631	1	-91.91	14* 6*39	11/16/64	516	13.9	218.8	26.1	10.2	60.746	-86.8	14*16* 3	9.4					833		
7633	2	-141.25	17*21*28	11/16/64	516	14.1	218.8	26.3	10.4	60.734	-64.2	17*31* 3	9.6					833		
7638	3	95.38	1*28*28	11/17/64	517	15.8	219.0	26.4	10.8	60.706	15.0	1*54*33	26.1					833		
7665	1	149.26	21*18*18	11/18/64	518	30.8	225.6	21.0	16.5	60.557	-55.7	21*52* 3	33.8					834		
7668	2	75.24	2*10*30	11/19/64	519	32.6	226.8	20.2	17.0	60.541	-66.0	2*49*33	39.1					834		
7675	1	-97.45	13*32*18	11/19/64	519	35.4	231.1	19.5	18.8	60.503	-87.8	13*43* 3	10.8					835		
7676	1	-122.12	15* 9*43	11/19/64	519	35.6	231.5	19.5	18.9	60.498	-75.2	15*24* 3	14.3					835		
7677	2	-146.79	16*47* 7	11/19/64	519	35.9	231.7	19.4	19.1	60.493	-71.7	16*57*33	10.4					835		
7680	1	139.19	21*39*19	11/19/64	519	36.8	232.4	19.0	19.5	60.477	-59.3	22*14* 3	34.7					835		
7682	2	85.85	0*54* 7	11/20/64	520	37.7	233.6	18.6	19.8	60.466	-56.0	1*30* 3	35.9					835		
7690	1	-107.51	13*53*19	11/20/64	520	39.4	239.7	18.1	21.8	60.424	-77.6	14* 5* 3	11.7					836		
7692	2	-156.86	17* 8* 7	11/20/64	520	39.6	240.5	18.1	22.1	60.413	-73.8	17*19* 3	10.9					836		
7694	1	153.79	20*22*56	11/20/64	520	39.9	241.1	18.1	22.4	60.403	-63.0	20*54*33	31.6					836		
7695	1	129.12	22* 0*20	11/20/64	520	40.1	241.6	18.0	22.5	60.398	-54.0	22*35*33	35.2					836		
7696	3	104.45	23*37*44	11/20/64	520	40.4	242.2	17.8	22.7	60.392	-49.5	0* 2*33	24.8					836		
7697	2	79.78	1*15* 8	11/21/64	521	40.6	243.1	17.6	22.9	60.387	-60.7	1*52* 3	36.9					836		

READOUT										ORBIT					TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT NO.	COA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)					SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T ANO		FMR TAPE REEL NO.			
		EARTH LCNGI -Tude (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIRS	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)	MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-							
7704	1	-92.91	12*36*53	11/21/64	521	40.5	249.2	17.5	24.6	60.350	-84.3	12*45*33	8.7			837					
7705	1	-117.58	14*14*20	11/21/64	521	40.4	249.6	17.7	24.8	60.345	-75.9	14*26*33	12.2			837					
7706	2	-142.25	15*51*44	11/21/64	521	40.3	250.0	17.8	24.9	60.340	-71.5	15*59*33	7.8			837					
7709	1	143.72	20*43*57	11/21/64	521	40.2	251.0	17.9	25.3	60.324	19.5	21*17*33	33.6			837					
7710	3	119.05	22*21*21	11/21/64	521	40.3	251.6	17.8	25.4	60.319	-41.0	22*44*33	23.2			837					
7711	2	94.38	23*58*45	11/21/64	521	40.3	252.3	17.7	25.6	60.313	-62.8	0*33*33	34.8			837					
7719	1	-102.98	12*57*57	11/22/64	522	38.5	258.6	18.0	27.5	60.271	-77.0	13* 9* 3	11.1			838					
7720	2	-127.65	14*35*21	11/22/64	522	38.2	258.9	18.2	27.7	60.266	-72.5	14*42* 3	6.7			838					
7721	2	-152.32	16*12*45	11/22/64	522	37.9	259.2	18.4	27.8	60.260	-79.3	16*22*33	9.8			838					
7723	1	158.33	19*27*34	11/22/64	522	37.5	259.7	18.7	28.1	60.250	-43.3	19*58*33	31.0			838					
7724	1	133.65	21* 4*58	11/22/64	522	37.4	260.1	18.8	28.2	60.244	-54.4	21*40* 3	35.1			838					
7725	2	168.98	22*42*22	11/22/64	522	37.3	260.7	18.7	28.4	60.239	-48.5	23*16* 3	33.7			838					
7726	2	84.31	0*19*46	11/23/64	523	37.1	261.4	18.6	28.6	60.227	-50.0	0*57* 3	37.3			838					
7733	1	-88.38	11*41*34	11/23/64	523	34.1	266.0	19.3	30.3	60.179	-84.3	11*51*33	10.0			839					
7735	2	-137.72	14*56*22	11/23/64	523	33.3	266.3	19.8	30.7	60.165	-77.9	15* 3*33	7.2			839					
7738	1	148.26	19*48*35	11/23/64	523	33.2	266.5	19.8	30.9	60.146	-47.9	20*21*33	33.0			839					
7739	1	123.59	21*25*59	11/23/64	523	33.1	266.6	19.7	31.0	60.139	-52.6	22* 2*33	36.6			839					
7740	3	98.92	23* 3*23	11/23/64	523	33.1	266.7	19.7	31.1	60.132	-48.7	23*28*33	25.2			839					
7748	1	-98.45	12* 2*35	11/24/64	524	32.5	267.4	19.1	31.8	60.080	-72.4	12*11*33	9.0			840					
7749	1	-123.12	13*39*59	11/24/64	524	32.4	267.5	19.0	31.8	60.074	-76.4	13*53*33	13.6			840					
7750	2	-147.79	15*17*23	11/24/64	524	32.4	267.5	18.9	31.9	60.068	-71.2	15*27* 3	9.7			840					
7752	1	162.85	18*32*11	11/24/64	524	32.3	267.6	18.8	32.1	60.055	-63.2	19* 2*33	30.4			840					
7753	1	138.18	20* 9*36	11/24/64	524	32.2	267.7	18.7	32.1	60.049	-55.2	20*45* 3	35.5			840					
7754	3	113.51	21*47* 0	11/24/64	524	32.2	267.7	18.6	32.2	60.042	13.3	22*10*13	23.2			840					
7755	2	88.84	23*24*24	11/24/64	524	32.1	267.8	18.5	32.3	60.036	-60.4	0* 1*33	37.2			840					
7763	1	-108.52	12*23*36	11/25/64	525	31.5	268.5	17.9	32.9	59.986	-80.0	12*34*33	11.0			841					

READOUT										ORBIT					FMR TAPE REEL NO.	
ORBIT NO.	STA	SATELLITE EQUATOR CROSSING AT ORBITAL ASCENDING NODE (ANO)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E N D	DROPOUTS, MINUTES W/R/T ANO			
		EARTH LON/GI	HOURS MINUTES	CALENDAR DATE	TIROS	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOF (MIN. AFTER ANO)		MINU -TES W/R/T ANO	HOURS	MINU -TES W/R/T ANO	FROM-	TO-	
		(DEG)	(GMT)			(DEG)	(DEG)	(DEG)			(DEG)	SECONDS (GMT)	(DEG)			
7764	2	-133.19	14* 1* 0	11/25/64	525	31.4	268.5	17.8	33.0	59.980	-73.3	14* 8*33	7.6			841
7765	2	-157.86	15*38*24	11/25/64	525	31.3	268.6	17.7	33.1	59.974	-77.1	15*49*33	11.2			841
7767	1	152.79	18*53*12	11/25/64	525	31.2	268.6	17.6	33.2	59.962	-60.7	19*26* 3	32.9			841
7769	2	103.44	22* 8* 0	11/25/64	525	31.1	268.8	17.4	33.4	59.950	-38.4	22*41*33	33.6			841
7770	2	78.78	23*45*25	11/25/64	525	31.0	268.9	17.3	33.5	59.944	-50.3	0*22*33	37.1			841
7777	1	-93.91	11* 7*13	11/26/64	526	30.4	269.4	16.6	34.0	59.902	-87.7	11*16*33	9.3			842
7778	1	-118.58	12*44*37	11/26/64	526	30.3	269.4	16.6	34.1	59.896	-32.6	12*57*33	12.9			842
7779	2	-143.25	14*22* 1	11/26/64	526	30.2	269.4	16.5	34.2	59.890	-73.1	14*30*33	8.5			842
7781	1	167.39	17*36*49	11/26/64	526	30.1	269.5	16.3	34.3	59.878	-66.0	18* 6*33	29.7			842
7782	1	142.72	19*14*13	11/26/64	526	30.1	269.5	16.2	34.4	59.872	-4.8	19*49* 3	34.8			842
7783	3	118.65	20*51*37	11/26/64	526	30.0	269.6	16.1	34.4	59.866	-50.7	21*14*33	22.9			842
7784	2	93.38	22*29* 1	11/26/64	526	29.9	269.7	16.0	34.5	59.860	-61.8	23* 5* 3	36.0			842
7792	1	-103.98	11*28*14	11/27/64	527	29.2	270.4	15.1	35.2	59.813	-77.2	11*37*33	9.3			843
7794	2	-153.32	14*43* 2	11/27/64	527	29.0	270.5	14.9	35.3	59.802	-65.0	14*53* 3	10.0			843
7799	2	83.31	22*50* 2	11/27/64	527	28.7	270.7	14.4	35.5	59.773	-40.3	23*26*33	36.5			843
7806	1	-89.37	10*11*51	11/28/64	528	28.1	271.1	13.5	36.1	59.732	-86.7	10*20*33	8.7			844
7808	2	-138.72	13*26*39	11/28/64	528	28.0	271.2	13.3	36.2	59.720	-64.4	13*34*33	7.9			844
7813	2	57.92	21*33*39	11/28/64	528	27.7	271.3	12.6	36.5	59.692	-42.1	22* 7*33	33.9			844
7822	2	-124.11	12*10*16	11/29/64	529	27.0	271.6	11.5	37.1	59.640	-65.0	12*17* 3	6.8			845
7825	1	161.87	17* 2*28	11/29/64	529	26.9	271.6	11.1	37.3	59.622	-29.6	17*33* 3	30.6			845
7826	1	137.19	18*39*52	11/29/64	529	26.8	271.6	11.0	37.3	59.616	-38.9	19*13*33	33.7			845
7827	3	112.52	20*17*16	11/29/64	529	26.7	271.6	10.9	37.4	59.611	-50.3	20*40*33	23.3			845
7836	1	-109.51	10*53*52	11/30/64	530	26.1	271.9	9.6	38.0	59.558	-81.7	11* 4*33	10.7			846
7838	2	-158.85	14* 8*41	11/30/64	530	26.0	271.9	9.4	38.1	59.546	-61.6	14*20*33	11.9			846
7843	2	77.79	22*15*41	11/30/64	530	26.0	271.8	8.7	38.3	59.517	-43.9	22*53*33	37.9			846
7850	1	-94.93	9*37*29	12/ 1/64	531	26.8	271.6	7.1	38.4	59.475	-86.4	9*46*33	9.1			847

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE					FMR TAPE REEL NO.
ORBIT NO.	CIA STA	SATELLITE EQUATOR CROSSING AT ORBITAL ASCENDING NODE (AND)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T AND		FMR TAPE REEL NO.		
		EARTH LON/GI (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI-NA-TION (DEG)	RIGHT ASCEN-SION (DEG)	MINI-MUM NADIR (DEG)	TOT (MIN. AFTER AND)		MINU-TES W/R/T AND	HOURS MINUTES SECONDS (GMT)	MINU-TES W/R/T AND	FROM-	TO-				
7851	1	-119.60	11*14*53	12/ 1/64	531	26.9	271.7	6.8	38.4	59.469	-76.6	11*27*33	12.7				847		
7852	2	-144.27	12*52*17	12/ 1/64	531	27.0	271.7	6.6	38.4	59.463	-72.9	13* 3* 3	10.8				847		
7855	1	141.71	17*44*29	12/ 1/64	531	27.3	271.7	5.9	38.5	59.445	-44.3	18*18* 3	33.6				847		
7857	2	92.36	20*59*18	12/ 1/64	531	27.4	271.7	5.4	38.6	59.432	-39.1	21*33*33	34.3				847		
7865	1	-105.00	9*58*30	12/ 2/64	532	28.4	271.6	3.5	38.7	59.383	-73.1	10* 8*33	10.1				848		
7866	2	-129.67	11*35*54	12/ 2/64	532	28.5	271.6	3.3	38.7	59.377	-74.6	11*43* 0	7.1				848		
7867	2	-154.34	13*13*18	12/ 2/64	532	28.6	271.6	3.0	38.7	59.371	-77.3	13*23*33	10.3				848		
7869	1	156.31	16*28* 6	12/ 2/64	532	28.8	271.7	2.5	38.7	59.358	-62.0	16*59* 3	31.0				848		
7870	1	121.64	18* 5*30	12/ 2/64	532	28.9	271.6	2.3	38.8	59.352	-53.9	18*40* 3	34.6				848		
7872	2	82.30	21*20*18	12/ 2/64	532	29.1	271.6	1.8	38.8	59.339	-39.4	21*56*33	36.3				848		
7880	1	-115.06	10*19*31	12/ 3/64	533	30.2	271.4	-0.1	38.8	59.288	-40.5	10*31*33	12.0				849		
7884	1	146.24	16*49* 7	12/ 3/64	533	30.6	271.4	-1.1	38.9	59.261	-59.0	17*22* 3	32.9				849		
7886	2	96.90	20* 3*55	12/ 3/64	533	30.9	271.3	-1.5	38.9	59.248	-40.8	20*37*33	33.6				849		
7896	2	-149.80	12*17*55	12/ 4/64	534	32.3	271.2	-4.0	38.9	59.180	-57.1	12*27*33	9.6				850		
7899	1	136.18	17*10* 8	12/ 4/64	534	32.6	271.2	-4.8	38.9	59.159	-53.2	17*44* 3	33.9				850		
7901	2	86.84	20*24*56	12/ 4/64	534	32.9	271.1	-5.2	39.0	59.145	-37.5	21* 0*33	35.6				850		
7911	2	-159.86	12*38*56	12/ 5/64	535	34.4	270.9	-7.6	38.8	59.073	-54.9	12*50*33	11.6				851		
7913	1	150.78	15*53*44	12/ 5/64	535	34.6	270.9	-8.1	38.8	59.059	4.0	16*25*33	31.8				851		
7915	3	101.44	19* 8*32	12/ 5/64	535	34.9	270.9	-8.6	38.8	59.044	-39.5	19*34* 3	25.5				851		
7925	2	-145.26	11*22*33	12/ 6/64	536	36.5	270.7	-11.0	38.7	58.967	-67.1	11*30*33	8.0				852		
7927	1	165.39	14*37*21	12/ 6/64	536	36.8	270.7	-11.6	38.7	58.952	-0.3	15* 7*33	30.2				852		
7928	1	140.72	16*14*45	12/ 6/64	536	36.9	270.7	-11.8	38.7	58.944	-54.5	16*47*33	32.8				852		
7930	2	91.38	19*29*33	12/ 6/64	536	37.2	270.6	-12.3	38.7	58.928	-40.2	20* 4*33	35.0				852		
7940	2	-155.32	11*43*34	12/ 7/64	537	38.9	270.4	-14.7	38.6	58.846	-49.2	11*54* 3	10.5				853		
7942	1	155.32	14*58*22	12/ 7/64	537	39.2	270.4	-15.2	38.5	58.829	-63.3	15*29*33	31.2				853		
7943	1	130.65	16*35*46	12/ 7/64	537	39.4	270.5	-15.5	38.6	58.820	-5.8	17*10*33	34.8				853		

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE					FMR TAPE REEL NO.
ORBIT NO.	CCA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN VECTOR ATTITUDE				BEGIN	E N D			DROPOUTS, MINUTES W/R/T AND					
		EARTH LONGI TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI NA TION (DEG)	RIGHT ASCEN SION (DEG)	MINI MUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU -TFS W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-				
7945	2	81.31	19*50*34	12/ 7/64	537	39.7	270.4	-15.9	38.5	58.803	-39.6	20*29* 3	38.5				853		
7954	1	-140.75	10*27*10	12/ 8/64	538	41.3	270.3	-18.1	38.3	58.740	-64.6	10*34*33	7.4				854		
7957	1	145.23	15*19*23	12/ 8/64	538	41.8	270.3	-18.8	38.3	58.716	-59.0	15*51*33	32.2				854		
7959	2	55.89	18*34*11	12/ 8/64	538	42.1	270.2	-19.3	38.3	58.700	-41.6	19* 8*33	34.4				854		
7971	1	159.83	14* 2*59	12/ 9/64	539	44.3	270.0	-22.1	37.9	58.607	-67.1	14*33*33	30.6				855		
7984	2	-160.88	11* 9*12	12/10/64	540	43.2	269.2	-23.6	38.4	58.506	-59.0	11*21*33	12.4				856		
7986	1	149.77	14*24* 0	12/10/64	540	43.1	269.0	-23.7	38.5	58.491	5.5	14*56*33	32.6				856		
8000	1	164.37	13* 7*36	12/11/64	541	41.3	268.1	-24.9	39.2	58.383	-68.2	13*18* 3	30.5				857		
8003	2	90.36	17*59*48	12/11/64	541	40.9	267.9	-25.1	39.3	58.360	-23.3	18*35* 3	35.3				857		
8013	2	-156.34	10*13*49	12/12/64	542	39.6	267.1	-26.0	39.8	58.284	-56.6	10*24*33	10.7				858		
8018	2	80.29	18*20*49	12/12/64	542	39.1	266.8	-26.4	40.1	58.246	-31.8	18*58* 3	37.2				858		
8027	2	-141.74	8*57*26	12/13/64	543	37.9	266.0	-27.1	40.5	58.179	-63.3	9* 5*33	8.1				859		
8032	2	94.90	17* 4*26	12/13/64	543	37.4	265.6	-27.5	40.7	58.141	-31.6	17*39* 3	34.6				859		
8042	2	-151.80	9*18*26	12/14/64	544	36.1	264.7	-28.4	41.2	58.066	-56.1	9*28*33	10.1				860		
8045	1	134.17	14*10*38	12/14/64	544	35.8	264.4	-28.6	41.4	58.044	-57.5	14*45* 3	34.4				860		
8047	2	64.83	17*25*26	12/14/64	544	35.6	264.3	-28.8	41.4	58.029	-38.0	18* 2* 3	36.6				860		
8059	1	148.77	12*54*15	12/15/64	545	34.2	263.2	-29.9	42.0	57.940	-63.5	13*27*33	33.3				861		
8062	2	74.76	17*46*27	12/15/64	545	33.1	263.0	-30.0	42.3	57.918	-29.8	18*25*33	39.1				861		
8069	1	-97.93	5* 8*15	12/16/64	546	29.9	261.8	-29.5	43.3	57.867	-4.5	5*17* 3	8.8				862		
8070	1	-122.60	6*45*39	12/16/64	546	29.6	261.5	-29.3	43.4	57.860	-76.0	7* 0* 3	14.4				862		
8071	2	-147.27	8*23* 3	12/16/64	546	29.3	261.2	-29.2	43.5	57.852	-71.0	8*32* 3	9.0				862		
8073	3	163.38	11*37*51	12/16/64	546	28.6	260.7	-28.9	43.7	57.838	-63.1	11*56*33	18.7				862		
8075	3	114.03	14*52*40	12/16/64	546	27.9	260.3	-28.7	43.8	57.823	-18.8	15*15*33	22.9				862		
8076	2	69.36	16*30* 4	12/16/64	546	27.5	260.3	-28.6	44.0	57.816	-60.1	17* 5* 3	35.0				862		
8083	1	-63.33	3*51*52	12/17/64	547	24.3	259.4	-28.2	45.0	57.765	-6.6	4* 0* 3	8.2				863		
8084	2	-108.00	5*29*16	12/17/64	547	23.9	259.1	-28.0	45.1	57.758	1.6	5*40* 3	10.8				863		

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE					FMR TAPE REEL NO.
ORBIT NO.	CCA STA	SATELLITE EQUATOR CROSSING AT ORBITAL ASCENDING NODE (ANO)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T ANO		FMR TAPE REEL NO.		
		EARTH LONGI -TUDU (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -HUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-				
8085	2	-132.67	7* 6*40	12/17/64	547	23.6	258.8	-27.9	45.2	57.750	-6.7	7*14* 3	7.4				863		
8086	2	-157.34	8*44* 4	12/17/64	547	23.2	258.5	-27.7	45.3	57.743	-6.7	8*55* 3	11.0				863		
8089	3	128.64	13*36*16	12/17/64	547	22.4	257.9	-27.3	45.6	57.721	-6.1	13*57*33	21.3				863		
8090	2	103.97	15*13*40	12/17/64	547	22.3	257.8	-27.3	45.6	57.714	8.8	15*38* 3	24.4				863		
8091	2	79.30	16*51* 4	12/17/64	547	22.2	257.8	-27.4	45.7	57.707	-23.6	17*29* 3	38.0				863		
8098	1	-93.39	4*12*52	12/18/64	548	21.3	257.3	-28.2	46.1	57.656	-4.9	4*21* 3	8.2				864		
8099	1	-118.06	5*50*16	12/18/64	548	21.2	257.2	-28.2	46.2	57.649	-4.9	6* 3*28	13.2				864		
8114	2	-128.13	6*11*17	12/19/64	549	19.5	255.9	-29.7	47.0	57.542	-6.1	6*18* 3	6.8				865		
8115	2	-152.80	7*46*41	12/19/64	549	19.4	255.8	-29.7	47.0	57.534	-5.7	7*58*33	9.9				865		
8118	3	133.18	12*40*53	12/19/64	549	19.2	255.5	-30.0	47.1	57.513	-3.8	13* 3*58	23.1				865		
8127	1	-68.85	3*17*29	12/20/64	550	18.0	254.9	-30.9	47.7	57.449	-0.8	3*27* 3	9.6				866		
8128	1	-113.52	4*54*53	12/20/64	550	17.9	254.8	-31.0	47.7	57.442	-3.2	5* 6*33	11.7				866		
8129	2	-138.19	6*32*17	12/20/64	550	17.9	254.6	-31.1	47.8	57.435	-4.3	6*40* 3	7.8				866		
8133	3	123.12	13* 1*54	12/20/64	550	17.5	254.2	-31.4	47.9	57.407	-4.3	13*23*33	21.7				866		
8142	1	-98.91	3*38*30	12/21/64	551	16.5	253.6	-32.3	48.5	57.343	-3.9	3*47*33	9.1				867		
8143	1	-123.59	5*15*54	12/21/64	551	16.4	253.4	-32.4	48.5	57.336	-6.3	5*30* 3	14.2				867		
8144	2	-148.26	6*53*18	12/21/64	551	16.3	253.3	-32.5	48.6	57.329	4.6	7* 2*33	9.3				867		
8147	3	137.72	11*45*30	12/21/64	551	16.1	253.0	-32.7	48.7	57.308	-2.5	12* 5*33	20.1				867		
8148	3	113.05	13*22*54	12/21/64	551	16.0	252.9	-32.8	48.7	57.301	0.4	13*46* 3	23.2				867		
8156	1	-84.33	2*22* 6	12/22/64	552	15.1	252.3	-33.7	49.2	57.245	-2.6	2*30*33	8.5				868		
8157	1	-109.00	3*59*30	12/22/64	552	15.0	252.2	-33.7	49.3	57.238	-1.8	4*10* 3	10.6				868		
8158	2	-133.68	5*36*55	12/22/64	552	14.9	252.1	-33.8	49.3	57.231	-2.3	5*44* 3	7.1				868		
8159	2	-158.35	7*14*19	12/22/64	552	14.8	252.0	-33.9	49.4	57.225	-2.3	7*25*33	11.2				868		
8161	3	152.30	10*29* 7	12/22/64	552	14.7	251.7	-34.0	49.4	57.211	-2.4	10*48* 3	18.9				868		
8162	3	127.63	12* 6*30	12/22/64	552	14.6	251.6	-34.1	49.4	57.204	-0.8	12*28*33	22.1				868		
8171	1	-64.40	2*43* 7	12/23/64	553	13.7	250.9	-35.0	50.0	57.141	-1.1	2*52* 3	8.9				869		

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT NO.	CDA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN	VECTOR	ATTITUDE		SPIN RATE (DEG /SEC)	BEGIN	E N D	DROPOUTS, MINUTES W/R/T ANO							
		EARTH LONG1 -TUDR (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY			DECLI -NA -TIDN (DEG)	RIGHT ASCEN -SION (DEG)		MINU -TES W/R/T ANO	HOURS MINUTES SECONOS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-					
8172	1	-119.07	4*20*31	12/23/64	553	13.7	250.8	-35.1	50.0	57.134	-4.9	4*33*33	13.0				869			
8173	2	-143.74	5*57*55	12/23/64	553	13.6	250.6	-35.2	50.1	57.127	-0.9	6* 6*33	8.6				869			
8176	3	142.24	10*50* 7	12/23/64	553	13.5	250.3	-35.4	50.2	57.107	-1.2	11* 9*33	19.4				869			
8177	3	117.57	12*27*31	12/23/64	553	13.4	250.2	-35.5	50.2	57.100	-1.7	12*50* 3	22.5				869			
8188	2	-153.80	6*18*55	12/24/64	554	11.5	248.5	-36.0	50.9	57.024	3.0	6*28*33	9.6				870			
8190	3	156.84	9*33*43	12/24/64	554	10.4	247.5	-35.1	51.1	57.011	1.0	9*52* 3	18.3				870			
8191	1	132.17	11*11* 8	12/24/64	554	9.8	247.2	-34.7	51.2	57.004	-8.3	11*46*33	35.4				870			
8193	2	82.83	14*25*56	12/24/64	554	8.3	246.9	-33.9	51.6	56.990	-13.7	15* 2*3	36.1				870			
8220	3	136.71	10*15*44	12/26/64	556	-10.3	241.8	-24.1	56.5	56.807	-57.3	10*36* 3	20.3				871			
8221	3	112.04	11*53* 8	12/26/64	556	-11.0	241.7	-23.7	56.7	56.800	-28.2	12*16*33	23.4				871			
8229	1	-85.32	0*52*21	12/27/64	557	-17.1	242.4	-21.4	58.5	56.746	-90.6	1* 0*33	8.2				872			
8230	1	-109.99	2*29*45	12/27/64	557	-17.7	242.3	-21.1	58.7	56.740	-78.9	2*41* 3	11.3				872			
8234	1	151.32	8*59*21	12/27/64	557	-19.8	241.4	-19.7	59.2	56.713	-34.3	9*31* 3	31.7				872			
8235	1	126.65	10*36*45	12/27/64	557	-20.5	241.3	-19.3	59.3	56.706	-54.3	11*12*33	35.8				872			
8245	1	-120.05	2*50*45	12/28/64	558	-27.5	243.2	-16.7	61.5	56.640	-55.3	3* 3*33	12.8				873			
8249	1	141.25	9*20*21	12/28/64	558	-29.5	242.8	-15.5	62.0	56.613	-37.7	9*54* 3	33.7				873			
8259	1	-105.45	1*34*21	12/29/64	559	-36.1	246.6	-13.1	64.3	56.547	-57.7	1*44* 3	9.7				874			
8261	2	-154.80	4*49*10	12/29/64	559	-36.9	247.0	-12.9	64.6	56.534	-64.7	4*59*33	10.4				874			
8263	1	155.85	8* 3*58	12/29/64	559	-37.7	247.2	-12.5	64.9	56.520	-62.1	8*35*33	31.6				874			
8273	1	-90.65	0*17*58	12/30/64	560	-42.8	253.7	-11.1	67.1	56.455	-58.5	0*26* 3	8.1				875			
8274	1	-115.52	1*55*22	12/30/64	560	-43.0	254.1	-11.1	67.3	56.448	-78.1	2* 7*33	12.2				875			
8278	1	145.78	8*24*58	12/30/64	560	-44.3	255.4	-10.7	67.9	56.422	10.4	8*57*33	32.6				875			
8288	1	-100.92	0*38*58	12/31/64	561	-47.2	264.8	-10.0	70.3	56.357	-57.3	0*48* 2	9.1				876			
8290	2	-150.26	3*53*46	12/31/64	561	-47.3	265.9	-10.2	70.7	56.344	-74.3	4* 3* 2	9.3				876			
8292	1	160.39	7* 8*34	12/31/64	561	-47.5	266.8	-10.2	70.9	56.331	-65.3	7*39* 0	30.4				876			
8332	1	-106.44	0* 4*35	1/ 3/65	564	-39.7	299.0	-12.2	79.5	56.073	-48.0	0*15* 3	10.5				877			

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT	CDA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (AND)				SPIN VECTOR ATTITUDE				BEGIN	E N D			DROPOUTS, MINUTES W/R/T AND						FMR TAPE REEL NO.
		EARTH LONGI TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI-NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI-MUM NADIR (DEG)	TOT (MIN. AFTER ANO)		SPIN RATE (DEG /SEC)	MINU-TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU-TES W/R/T AND	FROM-	TO-				
8346	1	-91.83	22*48*12	1/ 3/65	564	-31.8	304.8	-14.9	82.5	55.984	-39.4	22*56*33	8.4				878			
8361	1	-101.90	23* 9*12	1/ 4/65	565	-21.8	307.8	-18.8	85.7	55.889	-58.6	23*18*33	9.4				879			
8362	2	-126.57	0*46*23	1/ 5/65	566	-20.9	307.2	-19.6	86.3	55.883	-76.0	0*53*33	7.2				879			
8377	2	-136.66	1* 7*36	1/ 6/65	567	-10.4	307.2	-24.5	88.7	55.789	-74.0	1*15*33	8.0				880			
8378	2	-161.33	2*45* 0	1/ 6/65	567	-9.8	306.9	-25.0	88.9	55.782	-78.3	2*57*33	12.6				880			
8392	2	-146.72	1*28*37	1/ 7/65	568	-0.8	305.6	-29.6	91.5	55.695	-71.0	1*37*33	8.9				881			
8404	1	-82.77	20*57*25	1/ 7/65	568	-0.1	304.7	-28.3	92.1	55.620	-90.3	21* 5*33	8.1				882			
8405	1	-107.44	22*54*49	1/ 7/65	568	-0.1	304.7	-28.2	92.1	55.614	-76.8	22*45*33	10.7				882			
8406	2	-132.11	0*12*13	1/ 8/65	569	-0.1	304.6	-28.1	92.2	55.608	-74.1	0*20*33	8.3				882			
8407	2	-156.78	1*49*37	1/ 8/65	569	-0.	304.5	-28.0	92.2	55.602	-75.8	2* 1*33	11.9				882			
8419	1	-92.84	21*18*25	1/ 8/65	569	0.5	303.7	-26.5	92.7	55.528	-54.0	21*28* 3	9.6				883			
8420	1	-117.51	22*55*49	1/ 8/65	569	0.6	303.6	-25.4	92.8	55.522	-75.2	23* 8*33	12.7				883			
8421	2	-142.18	0*33*13	1/ 9/65	570	0.7	303.7	-26.1	92.9	55.515	-71.1	0*42*33	9.3				883			
8434	1	-102.90	21*39*25	1/ 9/65	570	1.5	303.0	-24.4	93.5	55.436	-45.6	21*50* 3	10.6				884			
8436	2	-152.24	0*54*13	1/10/65	571	1.5	303.0	-24.1	93.6	55.423	-72.7	1* 4*33	10.3				884			
8449	1	-112.96	22* 0*25	1/10/65	571	2.4	302.2	-21.8	94.1	55.344	-79.7	22*12*33	12.1				885			
8450	2	-137.64	23*27*49	1/10/65	571	3.1	301.8	-22.4	94.3	55.338	-70.6	23*45*33	7.7				885			
8463	1	-58.42	20*44* 1	1/11/65	572	13.3	299.4	-26.9	97.0	55.259	-58.8	20*54* 3	10.0				886			
8464	1	-123.09	22*21*26	1/11/65	572	14.1	299.0	-27.4	97.2	55.253	-74.5	22*35*33	14.1				886			
8465	2	-147.76	23*58*50	1/11/65	572	14.8	298.5	-27.9	97.4	55.247	-71.9	0* 8*33	9.7				886			
8467	3	162.93	3*13*38	1/12/65	573	16.0	297.8	-29.0	97.6	55.235	-64.0	3*32* 3	18.4				886			
8468	3	138.26	4*51* 2	1/12/65	573	16.5	297.4	-29.4	97.6	55.229	-67.9	5*11* 3	20.0				886			
8483	3	128.20	5*12* 2	1/13/65	574	28.0	293.0	-34.6	97.7	55.138	-12.6	5*34* 3	22.0				887			
8496	3	167.48	2*18*14	1/14/65	575	28.2	292.7	-32.7	97.7	55.060	-32.0	2*36* 3	17.8				888			
8497	3	142.80	3*55*38	1/14/65	575	28.2	292.7	-32.6	97.7	55.054	-66.7	4*15*33	19.9				888			
8498	3	118.13	5*33* 2	1/14/65	575	28.2	292.7	-32.4	97.7	55.048	-65.2	5*55*33	22.5				888			

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT NO.	STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN DECLI -TNUDE (DEG)	VECTOR RIGHT ASCEN -SION (DEG)	ATTITUDE MINI -MUM NAODR (DEG)	TOT [MIN. AFTER ANO]	SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T AND					
		EARTH LONGI -TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY						MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-					
8507	1	-103.90	20* 9*38	1/14/65	575	28.2	292.2	-30.8	4.4	54.994	-78.4	20*20* 3	10.4			889				
8509	2	-153.24	23*24*26	1/14/65	575	28.2	292.1	-30.5	4.4	54.983	-74.5	23*34*33	10.1			889				
8513	3	108.07	5*54* 2	1/15/65	576	28.3	291.9	-29.9	4.5	54.959	15.4	6*17*33	23.5			889				
8526	3	147.35	3* 0*14	1/16/65	577	28.4	291.2	-27.8	4.8	54.881	-19.7	3*19*33	19.3			890				
8527	3	122.68	4*37*38	1/16/65	577	28.4	291.2	-27.7	4.8	54.875	-65.4	4*59*33	21.9			890				
8528	2	98.01	6*15* 2	1/16/65	577	28.4	291.1	-27.5	4.8	54.869	-60.7	6*49*33	34.5			890				
8541	3	137.28	3*21*14	1/17/65	578	28.6	290.4	-25.5	5.1	54.792	-66.7	3*41*33	20.3			891				
8542	3	112.61	4*58*38	1/17/65	578	28.6	290.4	-25.3	5.2	54.787	-64.3	5*22*33	23.9			891				
8543	2	87.94	6*36* 2	1/17/65	578	28.6	290.4	-25.1	5.2	54.781	-60.9	7*11*33	35.5			891				
8555	3	151.89	2* 4*50	1/18/65	579	28.8	289.8	-23.2	5.5	54.710	-71.1	2*23*33	18.7			892				
8556	3	127.22	3*42*15	1/18/65	579	28.8	289.8	-23.0	5.5	54.704	-67.1	4* 3*33	21.3			892				
8557	2	102.55	5*19*39	1/18/65	579	28.8	289.7	-22.8	5.5	54.698	-64.0	5*53*33	33.9			892				
8558	2	77.83	6*57* 2	1/18/65	579	28.8	289.7	-22.7	5.6	54.692	-52.3	7*34*33	37.5			892				
8566	1	-119.48	19*56*15	1/18/65	579	28.9	289.3	-21.4	5.8	54.645	-72.1	20* 9*33	13.3			893				
8570	3	141.80	2*25*51	1/19/65	580	29.0	289.1	-20.8	5.9	54.622	-63.9	2*45*33	19.7			893				
8572	2	92.45	5*40*39	1/19/65	580	29.0	289.0	-20.5	6.0	54.610	-65.1	6*15*33	34.9			893				
8585	3	131.73	2*46*51	1/20/65	581	29.2	288.6	-18.4	6.3	54.534	-71.0	3* 7*33	20.7			894				
8587	2	82.39	6* 1*39	1/20/65	581	28.8	288.7	-17.8	6.3	54.522	-62.1	6*38*33	36.9			894				
8596	2	-139.64	20*38*15	1/20/65	581	27.2	288.3	-15.5	6.1	54.470	-76.7	20*49* 3	10.8			895				
8599	1	146.34	1*30*27	1/21/65	582	26.7	288.3	-14.7	6.2	54.452	-50.9	2* 3* 3	32.6			895				
8600	3	121.67	3* 7*51	1/21/65	582	26.5	288.3	-14.4	6.1	54.446	-53.3	3*30*33	22.7			895				
8601	3	97.00	4*45*15	1/21/65	582	26.4	288.3	-14.1	6.1	54.441	-63.0	5*10*33	25.3			895				
8659	2	106.09	2*54*26	1/25/65	586	17.1	288.6	2.6	6.0	54.105	-32.9	3*29* 3	34.6			896				
8660	2	81.42	4*31*50	1/25/65	586	16.9	288.6	2.9	5.9	54.099	-49.0	5* 8*33	36.7			896				
8667	1	-91.28	15*53*38	1/25/65	586	15.8	288.5	4.9	5.9	54.059	-87.7	16* 3* 3	9.4			897				
8669	2	-140.62	19* 8*26	1/25/65	586	14.5	289.0	6.0	5.9	54.047	-63.7	19*19* 3	10.6			897				

READOUT										ORBIT					TIME INTERVAL OF FILE ON FMR TAPE					FMR TAPE REEL NO.
ORBIT NO.	CDA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN	VECTOR	ATTITUDE	SPIN RATE IDEGR/SEC	BEGIN	E	N	D	DROPOUTS, MINUTES H/R/T AND		FMR TAPE REEL NO.				
		EARTH LONGI TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR	TIROS	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)		MINU -TES W/R/T AND	MINU -TES W/R/T AND	MINU -TES W/R/T AND	FROM-	TO-						
8727	2	-131.55	17*17*38	1/29/65	590	-2.3	292.5	31.1	4.9	53.716	-70.1	17*27* 3	9.4			898				
8740	1	-92.27	14*23*50	1/30/65	591	-0.9	292.8	33.1	6.7	53.641	-89.5	14*35* 3	11.2			899				
8769	1	-87.73	13*28*26	2/ 1/65	593	10.7	293.2	31.3	10.3	53.477	-30.5	13*37* 3	8.6			900				
8770	1	-112.39	15* 5*50	2/ 1/65	593	11.3	293.1	31.0	10.6	53.471	-77.3	15*17* 3	11.2			900				
8771	2	-137.07	16*43*14	2/ 1/65	593	11.9	293.0	30.7	10.7	53.465	-73.5	16*51* 3	7.8			900				
8774	1	148.91	21*35*26	2/ 1/65	593	13.5	292.5	29.7	11.1	53.448	26.1	22* 9* 3	33.6			900				
8776	2	59.57	0*50*14	2/ 2/65	594	15.0	292.6	28.9	11.5	53.437	-37.9	1*25* 3	34.8			900				
8777	2	74.90	2*27*38	2/ 2/65	594	15.8	293.0	28.6	11.7	53.431	-11.5	3* 6* 3	38.4			900				
8800	2	-122.52	15*47*50	2/ 3/65	595	29.0	299.2	23.5	16.8	53.301	-68.8	15*56* 3	8.2			901				
8801	2	-157.19	17*25*14	2/ 3/65	595	29.4	299.3	23.3	16.9	53.295	-77.3	17*36*33	11.3			901				
8804	3	128.79	22*17*26	2/ 3/65	595	30.7	299.7	22.7	17.3	53.278	-51.7	22*38*33	21.1			901				
8805	2	104.12	23*54*50	2/ 3/65	595	31.3	300.2	22.4	17.5	53.272	-64.0	0*29* 3	34.2			901				
8806	2	79.45	1*32*14	2/ 4/65	596	31.9	300.8	22.1	17.8	53.267	9.1	2*10*33	38.3			901				
8813	1	-93.24	12*54* 2	2/ 4/65	596	34.5	305.5	21.3	19.6	53.227	-1.6	13* 2*33	8.5			902				
8814	1	-117.91	14*31*26	2/ 4/65	596	34.7	305.8	21.2	19.7	53.221	-77.6	14*44* 3	12.6			902				
8815	2	-142.58	16* 8*50	2/ 4/65	596	35.0	306.1	21.2	19.9	53.216	-72.5	16*16*33	7.7			902				
8818	1	143.39	21* 1* 2	2/ 4/65	596	35.8	306.8	20.9	20.3	53.198	-55.0	21*34*33	33.5			902				
8820	2	94.06	0*15*47	2/ 5/65	597	36.6	308.2	20.4	20.6	53.187	-38.1	0*50*33	34.8			902				
8828	1	-103.30	13*15* 1	2/ 5/65	597	38.0	314.9	19.9	22.8	53.142	-76.6	13*26* 3	11.0			903				
8829	2	-127.97	14*52*25	2/ 5/65	597	38.0	315.3	20.0	22.9	53.136	-72.1	14*59*33	7.1			903				
8830	2	-152.64	16*29*49	2/ 5/65	597	38.0	315.6	20.1	23.1	53.130	-77.9	16*40*33	10.7			903				
8832	1	158.00	19*44*37	2/ 5/65	597	38.2	316.1	20.0	23.3	53.119	-61.4	20*15*33	30.9			903				
8833	3	133.33	21*22* 1	2/ 5/65	597	38.4	316.4	19.9	23.4	53.113	-53.8	21*43*33	21.5			903				
8834	2	108.66	22*59*25	2/ 5/65	597	38.7	317.1	19.8	23.6	53.108	-63.6	23*32*33	33.1			903				
8835	2	83.99	0*36*49	2/ 6/65	598	38.9	318.0	19.5	23.8	53.102	-51.2	1*13*33	36.7			903				
8843	1	-113.36	13*36* 1	2/ 6/65	598	37.9	324.4	19.8	25.9	53.057	-81.8	13*47*33	11.5			904				

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT NU.	CDA STA	SATELLITE EQUATOR CRUISING AT CRBITAL ASCENDING NUDE (AND)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T AND	FROM-	TO-			
		EARTH -TODE (DEG)	HOURS LCNGI MINUTES -TODE (GMT)	CALENDAR SECONOS	TIROS DATE	DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)		MINU -TES W/R/T AND	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T AND	FROM-	TO-					
8844	2	-138.03	15*13*25	2/ 6/65	598	37.9	324.4	19.9	26.0	53.051	-72.5	15*20*33	7.1				904			
8847	3	147.94	20* 5*37	2/ 6/65	598	37.9	324.4	19.9	26.1	53.034	-53.9	20*25*33	19.9				904			
8849	2	98.60	23*20*25	2/ 6/65	598	37.9	324.5	19.8	26.3	53.023	-53.7	23*54*33	34.1				904			
8857	1	-98.76	12*19*37	2/ 7/65	599	37.8	325.1	19.6	26.8	52.977	-78.0	12*31* 3	11.4				905			
8858	2	-123.43	13*57* 1	2/ 7/65	599	37.8	325.1	19.6	26.9	52.972	-72.6	14* 3*33	6.5				905			
8859	2	-148.10	15*34*25	2/ 7/65	599	37.7	325.1	19.6	27.0	52.966	-78.2	15*45* 3	10.6				905			
8861	1	162.55	18*49*13	2/ 7/65	599	37.7	325.1	19.6	27.1	52.955	-62.2	19*19*33	30.3				905			
8864	2	88.54	23*41*25	2/ 7/65	599	37.7	325.2	19.4	27.2	52.938	-31.1	0*16*33	35.1				905			
8872	1	-108.82	12*40*37	2/ 8/65	600	37.5	325.6	19.2	27.8	52.892	-78.0	12*51*33	10.9				906			
8873	2	-133.49	14*18* 1	2/ 8/65	600	37.5	325.6	19.2	27.9	52.887	-74.3	14*27* 3	9.0				906			
8874	2	-158.16	15*55*25	2/ 8/65	600	37.4	325.6	19.1	27.9	52.881	-75.4	16* 7*33	12.1				906			
8876	3	152.49	19*10*13	2/ 8/65	600	37.4	325.6	19.1	28.0	52.870	-62.1	19*29*33	19.3				906			
8878	2	103.15	22*25* 1	2/ 8/65	600	37.4	325.6	19.0	28.1	52.858	-54.7	22*58*33	33.5				906			
8888	2	-143.55	14*39* 0	2/ 9/65	601	37.1	326.2	18.5	28.8	52.802	-65.1	14*48*33	9.6				907			
8892	3	117.75	21* 8*36	2/ 9/65	601	37.0	326.2	18.4	29.1	52.779	-41.1	21*31*33	23.0				907			
8893	2	93.08	22*46* 0	2/ 9/65	601	37.0	326.2	18.3	29.1	52.774	-61.2	23*20*33	34.6				907			
8902	2	-128.95	13*22*36	2/10/65	602	36.7	326.6	17.9	29.7	52.723	-66.8	13*31*33	9.0				908			
8903	2	-153.62	15* 0* 0	2/10/65	602	36.6	326.6	17.8	29.8	52.717	-76.0	15*10*33	10.6				908			
8908	2	83.02	23* 7* 0	2/10/65	602	36.5	326.6	17.5	30.1	52.689	-56.4	23*43*33	36.6				908			
8917	2	-139.01	13*43*36	2/11/65	603	38.0	326.4	15.6	30.3	52.638	-65.4	13*51*33	8.0				909			
8918	2	-163.68	15*21* 0	2/11/65	603	38.0	326.4	15.5	30.4	52.632	-77.5	15*34*33	13.6				909			
8921	3	122.30	20*13*12	2/11/65	603	38.1	326.4	15.1	30.5	52.615	-63.1	20*35*33	22.4				909			
8922	2	97.63	21*50*36	2/11/65	603	38.1	326.3	15.0	30.6	52.610	-61.2	22*24*33	34.0				909			
8934	3	161.58	17*19*23	2/12/65	604	38.9	325.9	13.5	31.0	52.537	-53.0	17*39* 3	19.7				910			
8936	3	112.24	20*34*11	2/12/65	604	38.9	325.8	13.2	31.1	52.526	-51.0	20*57*33	23.4				910			
8937	2	87.57	22*11*35	2/12/65	604	39.0	325.8	13.1	31.1	52.520	-60.8	22*47*33	36.0				910			

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE					FMR TAPE REEL NO.
ORBIT NO.	LDA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E N D			DROPOUTS, MINUTES W/R/T AND		FMR TAPE REEL NO.		
		EARTH LONGI -TUE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU -TES W/R/T ANO	HOURLS MINUTES SECONDS (GMT)	MINU -TES W/R/T AND	FRON- TO-					
8946	2	-134.46	12*48*11	2/13/65	605	39.7	325.2	11.9	31.3	52.468	-65.9	12*55* 3	6.9				911		
8947	2	-159.13	14*25*35	2/13/65	605	39.7	325.2	11.8	31.4	52.462	-77.8	14*37*33	12.0				911		
8949	3	151.52	17*40*23	2/13/65	605	39.8	325.2	11.5	31.4	52.451	-60.6	17*59*33	19.2				911		
8950	1	126.85	19*17*47	2/13/65	605	39.8	325.2	11.4	31.5	52.445	-40.7	19*54* 3	36.3				911		
8951	2	102.17	20*55*11	2/13/65	605	39.8	325.7	11.3	31.5	52.439	-51.7	21*28*33	33.4				911		
8952	2	77.50	22*32*35	2/13/65	605	39.3	326.4	11.0	31.7	52.434	-51.3	23*10*33	38.0				911		
8959	1	-55.18	9*54*23	2/14/65	606	34.4	330.4	12.1	33.5	52.393	-86.1	10* 3* 3	8.7				912		
8960	1	-119.85	11*31*47	2/14/65	606	33.7	330.5	12.5	33.7	52.388	-16.1	11*45* 3	13.3				912		
8961	2	-144.52	13* 9*11	2/14/65	606	33.1	330.6	12.9	33.9	52.382	-12.3	13*17*33	8.4				912		
8963	1	166.13	16*23*59	2/14/65	606	32.1	330.7	13.5	34.7	52.370	-14.9	16*55* 3	31.1				912		
8973	1	-80.57	8*37*58	2/15/65	607	25.0	334.1	15.3	36.5	52.313	-29.8	8*46*33	8.6				913		
8974	1	-105.24	10*15*22	2/15/65	607	24.2	334.1	15.7	36.7	52.307	-43.0	10*25*32	10.2				913		
8975	2	-129.91	11*52*46	2/15/65	607	23.5	334.1	16.2	36.9	52.301	-73.7	12* 0* 3	7.3				913		
8976	2	-154.58	13*30*10	2/15/65	607	22.8	333.9	16.6	37.1	52.296	-26.7	13*41* 3	10.9				913		
9093	2	-161.12	11*25*55	2/23/65	615	-65.3	259.0	56.4	71.8	51.623	-67.8	11*38*33	12.6				914		
9107	2	-146.51	16* 9*30	2/24/65	616	-64.6	256.3	57.0	71.6	51.542	-93.4	10*19* 3	9.6				915		
9110	1	139.47	15* 1*42	2/24/65	616	-64.7	256.0	56.9	71.5	51.525	-69.3	15*35* 3	33.4				915		
9122	2	-156.57	10*30*30	2/25/65	617	-64.1	263.4	56.0	69.4	51.456	-90.7	10*42* 3	11.6				916		
9136	2	-141.96	9*14* 5	2/26/65	618	-62.6	272.5	53.9	66.9	51.376	-96.0	9*22* 3	8.0				917		
9139	1	144.02	14* 6*17	2/26/65	618	-62.4	274.2	53.3	66.4	51.358	-69.1	14*39* 3	32.8				917		
9141	2	94.68	17*21* 5	2/26/65	618	-62.2	275.5	52.8	66.1	51.347	-68.6	17*56* 3	35.0				917		
9151	2	-152.02	9*35* 5	2/27/65	619	-60.3	281.2	50.4	64.5	51.289	-94.4	9*45* 3	10.0				918		
9154	1	133.96	14*27*16	2/27/65	619	-60.0	282.7	49.6	64.1	51.272	-69.0	15* 2* 3	34.8				918		
9156	2	84.62	17*42* 4	2/27/65	619	-59.7	283.8	49.0	63.9	51.261	-66.8	18*18* 3	36.0				918		
9166	2	-162.08	9*56* 4	2/28/65	620	-57.3	288.2	46.1	62.6	51.203	-91.6	10* 8*33	12.5				919		
9171	2	74.56	18* 3* 4	2/28/65	620	-56.4	290.5	44.4	62.1	51.174	-65.7	18*42* 3	39.0				919		

ORBIT NO.	CCA STA	READOUT				ORBIT				TIME INTERVAL OF FILE ON FMR TAPE				FMR TAPE REEL NO.	
		SATELLITE EQUATOR CRUISING AT ORBITAL ASCENDING NODE (ANO)				SPIN	VECTOR	ATTITUDE		BEGIN	E	N	D		
		EARTH LONGI -TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR	TIROS	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)	SPIN RATE (DEG /SEC)	MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-
9180	2	-147.47	8*39*39	3/ 1/65	621	-53.9	293.6	41.5	61.1	51.123	-95.3	8*49* 3	9.4		920
9183	1	138.51	13*31*51	3/ 1/65	621	-53.3	294.7	40.4	60.8	51.105	-69.7	14* 7* 3	35.2		920
9185	2	89.17	16*46*39	3/ 1/65	621	-53.2	295.0	39.8	60.7	51.094	-69.1	17*22* 3	35.4		920
9200	2	76.08	17* 7*38	3/ 2/65	622	-53.4	296.5	36.6	60.9	50.859	-64.9	17*45*33	37.9		921
9211	1	167.70	10*59* 2	3/ 3/65	623	-53.4	297.4	34.4	61.1	50.777	-74.8	11*29*27	30.4		922
9212	1	143.04	12*36*26	3/ 3/65	623	-53.4	297.5	34.2	61.1	50.770	-5.7	13* 9*33	33.1		922
9214	2	93.69	15*51*14	3/ 3/65	623	-53.5	297.7	33.8	61.1	50.756	-62.2	16*24*33	33.3		922
9226	1	157.65	11*20* 1	3/ 4/65	624	-53.5	298.7	31.5	61.2	50.675	-72.0	11*52*33	32.5		923
9227	1	132.97	12*57*25	3/ 4/65	624	-53.5	299.0	31.2	61.3	50.668	-55.7	13*32*33	35.1		923
9229	2	83.63	16*12*13	3/ 4/65	624	-53.2	299.3	30.7	61.3	50.655	-68.2	16*48*33	36.3		923
9239	2	-163.66	8*26*13	3/ 5/65	625	-52.0	299.9	28.4	61.0	50.588	-91.2	8*39*33	13.3		924
9241	1	147.58	11*41* 1	3/ 5/65	625	-51.9	300.0	28.0	61.0	50.575	-70.6	12*13*33	32.5		924
9243	2	98.24	14*55*48	3/ 5/65	625	-51.6	300.1	27.6	61.0	50.561	-69.4	15*29*33	33.8		924
9253	2	-148.45	7* 9*48	3/ 6/65	626	-50.3	300.0	25.7	60.7	50.495	-93.6	7*19*33	9.8		925
9255	1	162.19	10*24*36	3/ 6/65	626	-50.1	300.1	25.3	60.7	50.482	-17.9	10*55*33	31.0		925
9256	1	137.52	12* 2* 0	3/ 6/65	626	-50.0	300.1	25.1	60.7	50.476	-60.6	12*35*33	33.6		925
9258	2	88.18	15*16*48	3/ 6/65	626	-49.8	300.2	24.7	60.7	50.463	-67.6	15*52*33	35.8		925
9267	2	-133.85	5*53*23	3/ 7/65	627	-48.5	300.1	22.8	60.5	50.404	-96.7	6* 0*33	7.2		926
9268	2	-158.51	7*30*47	3/ 7/65	627	-48.4	300.2	22.6	60.5	50.398	-76.9	7*42*33	11.0		926
9270	1	152.13	10*45*35	3/ 7/65	627	-48.2	300.2	22.2	60.5	50.385	-72.0	11*17*33	32.0		926
9271	1	127.46	12*22*59	3/ 7/65	627	-48.1	300.3	22.0	60.5	50.378	-50.9	12*58*33	35.6		926
9272	2	102.79	14* 0*23	3/ 7/65	627	-48.0	300.3	21.8	60.5	50.372	-46.9	14*33*33	33.2		926
9273	2	78.12	15*37*47	3/ 7/65	627	-47.9	300.2	21.6	60.5	50.366	-57.9	16*15*33	37.0		926
9282	2	-143.90	6*14*22	3/ 8/65	628	-46.6	300.0	19.8	60.3	50.308	-96.2	6*22*33	8.2		927
9284	1	166.75	9*29*10	3/ 8/65	628	-46.4	300.0	19.4	60.3	50.296	-74.2	9*59* 3	29.9		927
9285	1	142.07	11* 6*34	3/ 8/65	628	-46.3	300.1	19.2	60.3	50.290	25.0	11*41* 3	34.5		927

ORBIT NO.	CDA STA	READOUT						ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
		SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (AND)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN		E N D		DROPOUTS, MINUTES W/R/T AND			
		EARTH LNGI -TODE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER AND)		MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-			
9287	2	92.73	14*21*22	3/ 8/65	628	-46.1	300.0	18.7	60.3	50.277	-38.2	14*57* 3	35.7				927	
9296	2	-125.31	4*57*58	3/ 9/65	629	-44.8	299.8	16.9	60.1	50.221	-64.9	5* 4*33	6.6				928	
9297	2	-153.98	6*35*22	3/ 9/65	629	-44.7	299.8	16.7	60.1	50.215	-79.0	6*46* 3	10.7				928	
9299	1	156.67	9*50*10	3/ 9/65	629	-44.5	299.8	16.3	60.1	50.203	-62.8	10*21*33	31.4				928	
9302	2	82.66	14*42*21	3/ 9/65	629	-44.1	299.8	15.6	60.1	50.184	-38.5	15*18*33	36.2				928	
9311	2	-139.37	5*18*57	3/10/65	630	-42.7	299.5	13.7	59.9	50.130	-65.3	5*26*33	7.6				929	
9314	1	146.61	10*11* 9	3/10/65	630	-42.4	299.6	13.0	59.9	50.112	18.2	10*43*33	32.4				929	
9316	2	57.27	13*25*57	3/10/65	630	-42.1	299.5	12.5	59.9	50.100	-51.7	14* 2* 3	36.1				929	
9326	2	-145.43	5*39*56	3/11/65	631	-40.5	299.4	10.2	59.8	50.041	-53.7	5*49*33	9.6				930	
9328	1	161.22	8*54*44	3/11/65	631	-40.3	299.4	9.7	59.9	50.029	-62.0	9*25*33	30.8				930	
9329	1	136.55	10*32* 8	3/11/65	631	-40.2	299.4	9.5	59.9	50.023	-52.0	11* 5*32	33.4				930	
9330	2	111.88	12* 9*32	3/11/65	631	-40.0	299.4	9.2	59.9	50.018	-49.4	12*43* 3	33.5				930	
9331	2	87.21	13*46*56	3/11/65	631	-39.9	299.4	9.0	59.9	50.012	-50.8	14*23*33	36.6				930	
9343	1	151.16	9*15*43	3/12/65	632	-37.9	298.4	6.5	59.7	49.944	-61.9	9*47*33	31.8				931	
9344	1	126.49	10*53* 7	3/12/65	632	-37.8	298.3	6.3	59.7	49.938	-52.6	11*28*33	35.4				931	
9345	2	101.82	12*30*31	3/12/65	632	-37.6	298.1	6.1	59.7	49.933	-49.9	13* 4* 3	33.5				931	
9346	2	77.15	14* 7*55	3/12/65	632	-37.5	297.9	6.0	59.7	49.927	-51.1	14*45*33	37.6				931	
9355	4	-144.88	4*44*31	3/13/65	633	-35.8	297.6	3.9	59.6	49.878	-63.5	4*52*33	8.0				932	
9357	1	165.77	7*59*18	3/13/65	633	-35.6	297.6	3.4	59.6	49.867	-63.8	8*29*33	30.3				932	
9358	1	141.10	9*36*42	3/13/65	633	-35.5	297.5	3.2	59.6	49.861	-52.3	10* 9*33	32.9				932	
9359	2	116.43	11*14* 6	3/13/65	633	-35.4	297.3	3.0	59.6	49.856	-52.4	11*47*58	33.9				932	
9360	2	91.76	12*51*30	3/13/65	633	-35.2	297.2	2.9	59.6	49.851	-51.0	13*26*33	35.1				932	
9369	2	-130.27	3*28* 6	3/14/65	634	-23.7	297.3	0.7	59.5	49.803	-65.6	3*37* 3	9.0				933	
9374	2	106.37	11*35* 5	3/14/65	634	-34.3	298.0	-0.8	59.7	49.777	-47.1	12*12* 3	37.0				933	
9375	2	81.70	13*12*29	3/14/65	634	-35.2	298.3	-0.7	59.9	49.772	-48.5	13*49*33	37.1				933	
9384	2	-140.33	3*49* 5	3/15/65	635	-40.0	303.8	-1.6	62.1	49.726	-64.3	3*59* 3	10.0				934	

READOUT									ORBIT						TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT NU.	CCA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NOUE (ANO)				SPIN VECTOR ATTITUDE				BEGIN SPIN RATE	E N D			DROPOUTS, MINUTES W/R/T ANO						FMR TAPE REEL NO.	
		EARTH LONGI-TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI-NA-TION (DEG)	RIGHT ASCEN-SION (DEG)	MINI-MUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU-TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU-TES W/R/T ANO	FROM-	TO-						
9387	1	145.65	8*41*17	3/15/65	635	-41.2	304.5	-1.8	62.6	49.712	-24.4	9*14*33	33.3						934		
9388	3	120.98	10*18*41	3/15/65	635	-41.7	304.8	-1.6	62.7	49.707	-48.6	10*41*33	22.9						934		
9389	2	96.31	11*56* 5	3/15/65	635	-41.4	306.3	-2.8	62.8	49.702	-61.5	12*30*33	34.5						934		
9397	1	-161.06	6*55*16	3/16/65	636	-47.3	313.6	-2.2	65.3	49.663	-78.4	1* 6* 3	10.8						935		
9398	2	-125.73	2*32*40	3/16/65	636	-47.7	314.1	-2.2	65.5	49.658	-74.5	2*40* 3	7.4						935		
9399	2	-150.40	4*1(* 4	3/16/65	636	-48.1	314.7	-2.2	65.7	49.654	-78.3	4*20*33	10.5						935		
9402	1	135.58	9* 2*16	3/16/65	636	-49.6	316.1	-1.9	66.2	49.640	-51.2	9*36*33	34.3						935		
9403	2	110.91	10*39*40	3/16/65	636	-50.3	316.9	-1.6	66.4	49.635	-50.0	11*13* 3	33.4						935		
9411	1	-86.45	23*38*51	3/16/65	636	-54.2	328.8	-1.4	68.9	49.598	-77.5	23*48* 3	9.2						936		
9412	1	-111.12	1*16*15	3/17/65	637	-54.3	329.9	-1.6	69.2	49.594	-75.2	1*28* 3	11.8						936		
9413	2	-135.79	2*53*39	3/17/65	637	-54.3	330.9	-1.8	69.4	49.597	-70.8	3* 2* 3	8.4						936		
9414	2	-160.46	4*31* 3	3/17/65	637	-54.4	331.8	-2.0	69.6	49.591	-76.1	4*43* 3	12.0						936		
9416	1	150.19	7*45*51	3/17/65	637	-54.7	333.4	-2.2	70.0	49.580	-37.3	8*17*33	31.7						936		
9418	2	100.85	11* 6*39	3/17/65	637	-55.4	335.8	-2.0	70.4	49.568	-42.7	11*35* 3	34.4						936		
9426	1	-96.51	23*59*50	3/17/65	637	-54.9	349.6	-3.0	72.8	49.522	-76.1	0*11* 3	11.2						937		
9427	1	-121.18	1*37*14	3/18/65	638	-54.6	350.5	-3.3	73.0	49.516	-73.1	1*51*33	14.3						937		
9428	2	-145.85	3*14*38	3/18/65	638	-54.2	351.4	-3.6	73.3	49.510	-68.9	3*25* 3	10.4						937		
9431	1	140.13	8* 6*50	3/18/65	638	-53.8	353.8	-4.2	73.7	49.493	12.4	8*40*33	33.7						937		
9432	2	115.46	9*44*14	3/18/65	638	-53.7	355.1	-4.2	74.0	49.487	-50.2	10*17* 3	32.8						937		
9440	1	-61.89	.22*43*26	3/18/65	638	-51.9	7.2	-4.0	76.4	49.440	-71.5	22*51*33	8.1						938		
9441	1	-106.57	0*20*50	3/19/65	639	-51.5	8.2	-4.0	76.7	49.434	-75.5	0*32* 3	11.2						938		
9442	2	-131.24	1*58*14	3/19/65	639	-51.3	9.0	-4.2	76.9	49.428	-71.5	2* 6* 3	7.8						938		
9443	2	-155.91	3*35*37	3/19/65	639	-51.0	9.7	-4.2	77.1	49.422	-78.2	3*47* 3	11.4						938		
9447	2	105.40	10* 5*13	3/19/65	639	-50.4	12.9	-3.9	77.8	49.398	-55.3	10*39* 3	33.8						938		
9455	1	-91.96	23* 4*25	3/19/65	639	-46.0	22.3	-3.6	80.1	49.350	-78.4	23*14* 3	9.6						939		
9456	1	-116.e3	0*41*49	3/20/65	640	-45.3	23.0	-3.8	80.4	49.344	-73.8	0*55* 3	13.2						939		

ORBIT NO.	STA	READOUT					ORBIT					TIME INTERVAL OF FILE ON FMR TAPE					FMR TAPE REEL NO.	
		SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)					SPIN VECTOR ATTITUDE				SPIN/RATE IDEG/SEC	BEGIN	E N D		DROPOUTS, MINUTES W/R/T ANO			
		EARTH LONGI TUDUE (DEG)	HOURS MINUTES SECCNDS (GMT)	CALENDAR	TIROS	DATE	DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)		MINU -TES W/R/T ANO	HOURS MINUTES SECCNDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-		
9457	2	-141.30	2*19*13	3/20/65	640	-44.8	23.4	-4.0	80.6	49.338	-70.9	2*28* 3	8.8				939	
9459	1	165.35	5*34* 0	3/20/65	640	-43.9	24.1	-4.1	81.0	49.326	-' 3.5	6* 5* 3	31.1				939	
9462	2	55.34	10*26*12	3/20/65	640	-42.5	25.9	-4.4	81.5	49.308	72.0	11* 1* 3	34.9				939	
9475	1	134.62	7*32*23	3/21/65	641	-32.5	31.6	-6.9	84.9	49.229	23.4	8* 7* 3	34.7				940	
9476	2	109.95	9* 9*47	3/21/65	641	-31.9	31.9	-7.0	85.0	49.223	24.0	9*42*11	32.8				940	
9477	2	85.28	10*47*11	3/21/65	641	-31.1	32.5	-7.1	85.2	49.217	24.2	11*23* 3	35.9				940	
9485	1	-112.07	23*46*23	3/21/65	641	-23.2	34.6	-9.3	87.6	49.168	-24.1	23*59* 3	12.7				941	
9487	2	-161.42	3* 1*11	3/22/65	642	-21.7	34.3	-10.3	88.0	49.156	-75.6	3*13*33	12.4				941	
9490	1	124.56	7*53*22	3/22/65	642	-19.8	33.9	-11.4	88.4	49.137	-65.1	8*30*33	37.2				941	
9491	2	55.89	9*30*46	3/22/65	642	-19.1	34.1	-11.6	88.6	49.131	-48.3	10* 4*33	33.8				941	
9499	1	-57.46	22*29*58	3/22/65	642	-11.2	35.0	-13.9	90.8	49.082	-91.9	22*40* 3	10.1				942	
9500	1	-122.15	0* 7*22	3/23/65	643	-10.3	34.8	-14.4	91.1	49.076	-75.2	0*21*33	14.2				942	
9501	2	-146.63	1*44*46	3/23/65	643	-9.6	34.5	-14.9	91.2	49.070	-70.9	1*54* 3	9.3				942	
9503	1	163.82	4*59*33	3/23/65	643	-8.2	33.9	-15.9	91.6	49.057	-64.2	5*30*33	31.0				942	
9506	2	69.81	9*51*45	3/23/65	643	-6.1	33.6	-16.9	92.0	49.039	-56.1	10*27*33	35.8				942	
9513	1	-82.87	21*13*33	3/23/65	643	1.1	33.8	-19.2	94.0	48.995	-89.4	21*21*33	8.0				943	
9514	1	-107.54	22*50*57	3/23/65	643	2.0	33.5	-19.6	94.3	48.989	-77.2	23* 2* 3	11.1				943	
9515	2	-132.21	C*28*23	3/24/65	644	3.0	33.0	-20.4	94.5	48.983	-72.4	0*36* 3	7.7				943	
9516	2	-156.88	2* 5*45	3/24/65	644	3.7	32.7	-20.9	94.7	48.977	-77.2	2*16*33	10.8				943	
9519	1	129.10	6*57*56	3/24/65	644	5.7	31.5	-22.4	95.1	48.958	-51.6	7*33*33	35.6				943	
9520	2	104.42	8*35*20	3/24/65	644	6.5	31.3	-22.8	95.3	48.952	-50.2	9* 9* 3	33.7				943	
9521	2	79.75	10*12*44	3/24/65	644	7.4	31.3	-23.2	95.5	48.946	-51.9	10*50* 3	37.3				943	
9528	1	-92.93	21*34*32	3/24/65	644	14.7	30.5	-26.0	98.2	48.902	-87.0	21*44* 3	9.5				944	
9529	1	-117.60	23*11*56	3/24/65	644	15.7	30.1	-26.5	98.4	48.896	-75.5	23*24*33	12.6				944	
9544	2	-127.66	23*32*55	3/25/65	645	28.6	25.3	-33.3	4.1	48.803	-79.9	23*40* 3	7.1				945	
9545	2	-152.33	1*10*19	3/26/65	646	28.9	25.0	-33.3	4.2	48.797	-78.7	1*20* 3	9.7				945	

READOUT										ORBIT					FMR TAPE REEL NO.	
ORBIT NO.	CUA STA	SATELLITE EQUATOR CROSSING AT ORBITAL ASCENDING NODE (ANO)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T ANO	
		EARTH LONGI TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT IMIN. AFTER ANO1		MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-	
9548	1	133.65	6* 2*31	3/26/65	646	29.6	24.2	-33.6	4.5	48.778	-48.4	6*37*33	35.0			945
9549	2	106.98	7*39*55	3/26/65	646	29.8	24.0	-33.7	4.5	48.772	-49.5	8*13* 3	33.1			945
9550	2	84.31	5*17*19	3/26/65	646	30.2	23.8	-33.8	4.6	48.766	-51.1	9*54*33	37.2			945
9578	2	113.53	6*44*26	3/28/65	648	37.2	19.7	-33.7	7.0	48.592	-70.8	7*17*33	33.1			946
9608	2	93.20	7*26*26	3/30/65	650	43.5	14.5	-33.6	9.2	67.154	-61.1	8* 1*33	35.1			947
9617	2	-128.83	22* 3* 1	3/30/65	650	44.9	13.0	-33.2	9.7	67.099	-82.1	22*11* 3	8.0			948
9618	2	-153.50	23*40*25	3/30/65	650	45.0	12.8	-33.3	9.8	67.093	-78.1	23*51* 3	10.6			948
9620	1	157.15	2*55*13	3/31/65	651	45.3	12.4	-33.3	9.9	67.081	-63.7	3*26*33	31.3			948
9622	2	107.80	.6*10* 1	3/31/65	651	45.6	12.1	-33.3	10.0	67.068	-41.4	6*42*33	32.5			948
9623	2	83.14	7*47*25	3/31/65	651	45.8	12.0	-33.2	10.0	67.062	-51.5	8*23*33	36.1			948
9630	1	-89.56	19* 9*12	3/31/65	651	46.9	11.0	-32.9	10.4	67.019	-88.1	19*17*33	8.4			949
9631	1	-114.23	20*46*36	3/31/65	651	47.0	10.8	-32.9	10.4	67.013	-66.3	20*59* 3	12.5			949
9632	2	-138.90	22*24* 0	3/31/65	651	47.2	10.5	-32.9	10.5	67.007	-73.0	22*32* 3	8.1			949
9633	2	-163.57	6* 1*24	4/ 1/65	652	47.3	10.3	-32.9	10.5	67.001	-76.3	0*14*33	13.2			949
9635	3	147.08	3*16*12	4/ 1/65	652	47.6	9.9	-33.0	10.6	66.988	-59.9	3*35*33	19.4			949
9636	3	122.41	4*53*35	4/ 1/65	652	47.8	9.7	-33.0	10.7	66.982	-64.3	5*15*33	22.0			949
9637	2	97.74	6*30*59	4/ 1/65	652	47.9	9.6	-32.9	10.7	66.976	-61.3	7* 5*33	34.6			949
9664	3	151.61	2*21.*45	4/ 3/65	654	48.3	8.5	-29.4	11.2	66.809	-61.4	2*39*33	18.8			950
9665	3	126.94	3*56* 9	4/ 3/65	654	48.2	8.5	-29.2	11.2	66.803	-62.2	4*21* 3	22.9			950
9666	2	102.26	5*35*33	4/ 3/65	654	48.1	8.5	-29.0	11.2	66.797	-59.5	6* 9*33	34.0			950
9667	2	77.60	7*12*56	4/ 3/65	654	48.0	8.5	-28.8	11.1	66.791	-50.2	7*50*33	37.6			950
9674	1	-55.10	18*34*44	4/ 3/65	654	47.3	8.4	-27.5	11.1	66.747	-85.6	18*45* 3	10.3			951
9675	1	-119.77	20*12* 8	4/ 3/65	654	47.2	8.4	-27.3	11.1	66.741	-74.0	20*25*58	13.8			951
9676	2	-144.44	21*49*32	4/ 3/65	654	47.1	8.4	-27.2	11.1	66.735	-66.5	22* 9*33	11.0			951
9678	3	166.21	1* 4*19	4/ 4/65	655	46.9	8.4	-26.8	11.1	66.723	6.1	1*23* 3	18.7			951
9679	3	141.54	2*41*43	4/ 4/65	655	46.8	8.4	-26.6	11.0	66.716	-64.0	3* 3* 3	21.3			951

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT NO.	CCA STA	SATELLITE EQUATOR CROSSING AT CKBITAL ASCENDING NUDE (ANO)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN MINU -TES W/R/T AND	E N D MINU -TES W/R/T AND	DROPOUTS, MINUTES W/R/T AND							
		EARTH LONGI -Tude (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU -TES W/R/T AND	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T AND	FROM-	TO-					
9680	3	116.87	4*19* 7	4/ 4/65	655	46.7	8.4	-26.4	11.0	66.710	-60.9	4*41*33	22.4					951		
9681	2	92.20	5*56*31	4/ 4/65	655	46.6	8.4	-26.2	11.0	66.704	-59.8	6*31*33	35.0					951		
9689	1	-105.17	18*55*42	4/ 4/65	655	45.8	8.2	-24.7	10.9	66.654	-77.1	19* 7* 3	11.4					952		
9690	2	-129.84	20*33* 6	4/ 4/65	655	45.7	8.2	-24.5	10.9	66.648	-72.8	20*41*33	8.5					952		
9691	2	-154.51	22*10*30	4/ 4/65	655	45.6	8.2	-24.3	10.9	66.642	-77.0	22*20*33	10.1					952		
9693	3	156.14	1*25*18	4/ 5/65	656	45.5	8.2	-23.9	10.9	66.630	-64.1	1*45* 3	19.8					952		
9694	3	131.47	3* 2*42	4/ 5/65	656	45.4	8.2	-23.7	10.9	66.623	-64.8	3*24* 3	21.4					952		
9695	2	106.79	4*40* 5	4/ 5/65	656	45.3	8.2	-23.5	10.9	66.617	-52.8	5*13*33	33.5					952		
9696	2	82.12	-6*17*29	4/ 5/65	656	45.2	8.2	-23.3	10.9	66.611	-44.2	6*54*33	37.1					952		
9704	1	-115.24	19*16*40	4/ 5/65	656	44.4	8.0	-21.9	10.8	66.561	-75.4	19*28*33	11.9					953		
9708	1	146.32	1*46*16	4/ 6/65	657	44.1	7.9	-21.1	10.8	66.536	-6.0	2*18*33	32.3					953		
9709	3	121.65	3*23*40	4/ 6/65	657	44.0	7.9	-20.9	10.8	66.530	-7.5	3*46*33	22.9					953		
9710	3	96.98	5* 1* 4	4/ 6/65	657	43.9	7.9	-20.7	10.8	66.524	-59.6	5*15*33	14.5					953		
9718	1	-100.38	18* C*15	4/ 6/65	657	43.2	7.6	-19.2	10.7	66.474	-47.0	18*10* 3	9.8					954		
9720	2	-149.72	21*15* 3	4/ 6/65	657	43.0	7.6	-18.9	10.7	66.462	-81.5	21*26*33	11.5					954		
9722	1	160.93	0*29*50	4/ 7/65	658	42.9	7.5	-18.5	10.7	66.449	-61.5	1* 0*33	30.7					954		
9723	1	136.26	2* 7*14	4/ 7/65	658	42.8	7.5	-18.3	10.7	66.443	-54.7	2*41*33	34.3					954		
9724	2	111.59	3*44*38	4/ 7/65	658	42.7	7.5	-18.1	10.7	66.437	-50.5	4*17*33	32.9					954		
9725	2	86.92	5*22* 2	4/ 7/65	658	42.6	7.5	-17.9	10.7	66.430	-49.2	5*58*33	36.5					954		
9735	2	-159.78	21*36* 1	4/ 7/65	658	41.8	7.2	-16.0	10.8	66.368	-76.8	21*47*33	11.5					955		
9737	1	150.87	0*50*49	4/ 8/65	659	41.7	7.2	-15.7	10.8	66.356	-61.3	1*22*33	31.7					955		
9738	1	126.20	2*28*12	4/ 8/65	659	41.6	7.1	-15.5	10.8	66.349	-23.6	3* 4*33	36.4					955		
9739	2	101.53	4* 5*36	4/ 8/65	659	41.5	7.1	-15.3	10.8	66.343	-48.2	4*39*33	34.0					955		
9740	2	76.86	5*43* 0	4/ 8/65	659	41.4	7.1	-15.1	10.8	66.337	-51.3	6*21*33	38.6					955		
9749	2	-145.16	20*19*35	4/ 8/65	659	40.7	6.8	-13.4	10.8	66.281	-71.5	20*29*33	10.0					956		
9754	2	51.47	4*26*34	4/ 9/65	660	40.4	6.7	-12.5	10.9	66.249	-30.5	5* 1*33	35.0					956		

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE						FMR TAPE REEL NO.
ORBIT NU.	CCA STA	SATELLITE EQUATOR CROSSING AT ORBITAL ASCENDING NODE (AND)					SPIN DECLI -NA -TION (DEG)	VECTOR RIGHT ASCEN -SION (DEG)	ATTITUDE MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)	SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T AND	FMR TAPE REEL NO.			
		EARTH LONGI -TUD (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIRUS DAY							MINU -TES W/R/T AND	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T AND	FROM-	TO-				
9763	2	-130.55	19* 3* 9	4/ 9/65	660	39.7	6.4	-10.8	10.9	66.193	-75.8	19* 9*33	6.4					957		
9764	2	-155.22	20*40*33	4/ 9/65	660	39.7	6.4	-10.7	10.9	66.187	-78.0	20*51*33	11.0					957		
9768	2	106.09	3*10* 9	4/10/65	661	39.4	6.4	-9.9	11.0	66.162	-40.6	3*43*33	33.4					957		
9769	2	81.41	4*47*33	4/10/65	661	39.4	6.4	-9.7	11.0	66.156	-51.9	5*24*33	37.0					957		
9776	1	-91.27	16* 9*20	4/10/65	661	38.9	6.1	-8.4	11.2	66.112	-86.9	16*18* 3	8.7					958		
9777	1	-115.94	17*46*44	4/10/65	661	38.8	6.1	-8.3	11.2	66.105	-75.6	17*59*33	12.8					958		
9778	2	-140.61	19*24* 7	4/10/65	661	38.8	6.1	-8.1	11.2	66.099	-71.7	19*36*33	12.4					958		
9783	2	96.03	3*31* 7	4/11/65	662	38.5	6.0	-7.2	11.3	66.038	-62.6	4* 5*33	34.4					958		
9792	2	-126.00	18* 7*42	4/11/65	662	38.0	5.7	-5.6	11.4	66.011	-68.4	18*14*33	6.9					959		
9793	2	-150.67	19*45* .5	4/11/65	662	37.9	5.7	-5.4	11.4	66.005	-78.8	19*57*33	12.5					959		
9798	2	85.97	3*52* 5	4/12/65	663	37.7	5.6	-4.5	11.5	65.974	-59.3	4*28*33	36.5					959		
9805	1	-86.72	15*13*52	4/12/65	663	37.2	5.4	-3.2	11.6	65.930	-83.9	15*23* 3	9.2					960		
9806	1	-111.39	16*51*16	4/12/65	663	37.2	5.4	-3.1	11.6	65.923	-77.8	17* 3* 3	11.8					960		
9807	1	-136.06	18*28*39	4/12/65	663	37.2	5.4	-2.9	11.6	65.917	-72.3	18*35*33	6.9					960		
9808	2	-160.73	20* 6* 3	4/12/65	663	37.1	5.4	-2.7	11.6	65.911	-1.8	20*18*33	12.5					960		
9810	3	149.92	23*20*51	4/12/65	663	37.1	5.4	-2.4	11.7	65.898	-56.8	23*40*33	19.7					960		
9812	2	160.50	2*55*39	4/13/65	664	37.0	5.4	-2.0	11.7	65.886	-47.7	3* 9*33	33.9					960		
9822	2	-146.10	18*49*37	4/13/65	664	36.5	5.1	-0.3	12.0	65.823	-66.8	19* 3*14	13.6					961		
9826	3	115.21	1*19*13	4/14/65	665	36.3	5.1	0.4	12.1	65.798	-36.7	1*42*33	23.3					961		
9839	1	154.50	22*25*23	4/14/65	665	35.8	4.9	2.6	12.4	65.716	-30.8	22*56*33	31.2					962		
9840	1	129.83	0* 2*53	4/15/65	666	35.8	4.8	2.8	12.3	65.710	-53.6	0*37*33	34.7					962		
9849	1	-92.20	14*39*21	4/15/65	666	35.8	5.2	4.3	12.8	65.653	-88.4	14*47*33	8.2					963		
9850	1	-116.87	16*16*45	4/15/65	666	35.8	5.2	4.5	12.9	65.647	-77.2	16*29*33	12.8					963		
9855	3	119.77	0*23*44	4/16/65	667	35.8	5.4	5.3	13.1	65.615	-47.1	0*46*33	22.8					963		
9864	1	-102.25	15* 0*19	4/16/65	667	36.3	6.0	6.5	13.7	65.558	-42.7	15* 9*33	9.2					964		
9865	1	-126.92	16*37*43	4/16/65	667	36.4	6.1	6.7	13.8	65.552	-74.8	16*52*33	14.8					964		

READOUT										ORBIT					FMR TAPE REEL NO.	
ORBIT NO.	CLA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN	VECTOR ATTITUDE			SPIN RATE (DEG /SEC)	BEGIN	E N D	DROPOUTS, MINUTES W/R/T AND			
		EARTH LON/GI (DEG)	HOURS MINUTES (GMT)	CALENDAR DATE	TROS DAY	DECLI-NA-TION (DEG)	RIGHT ASCEN-SION (DEG)	MINI-MUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU-TES W/R/T AND	MINU-TES W/R/T AND	FROM-	TO-		
9869	1	124.39	23* 7*18	4/16/65	667	36.5	6.2	7.2	14.0	65.527	-36.1	23*41*33	34.3		964	
9879	1	-112.30	15*21*17	4/17/65	668	41.5	10.5	6.4	15.9	65.464	-77.3	15*36*33	15.3		965	
9883	1	149.01	21*50*52	4/17/65	668	41.7	10.7	7.0	16.2	65.438	-35.0	22*23* 3	32.2		965	
9884	1	124.33	23*28*16	4/17/65	668	41.7	10.7	7.1	16.2	65.432	-48.4	0* 7*33	39.3		965	
9885	3	59.67	1* 5*40	4/18/65	669	41.8	10.8	7.2	16.3	65.426	-45.0	1*31*33	25.9		965	
9893	1	-57.69	14* 4*50	4/18/65	669	42.2	11.6	8.0	16.8	65.375	-78.3	14*15* 3	10.2		966	
9894	1	-122.36	15*42*14	4/18/65	669	42.2	11.6	8.1	16.8	65.369	-4.2	15*58*33	16.3		966	
9898	1	138.95	22*11*50	4/18/65	669	42.3	11.8	8.4	17.2	65.344	-18.3	22*45* 3	33.2		966	
9908	1	-107.74	14*25*48	4/19/65	670	42.8	12.8	9.3	17.8	65.280	-79.0	14*40*33	14.8		967	
9912	1	153.57	20*55*23	4/19/65	670	42.8	13.0	9.7	18.0	65.255	-35.4	21*27* 3	31.7		967	
9913	1	128.90	22*32*47	4/19/65	670	42.9	13.1	9.8	18.1	65.249	-52.9	23* 8*33	35.8		967	
9914	3	104.23	0*10*11	4/20/65	671	42.9	13.1	9.8	18.1	65.242	21.9	0*34*33	24.4		967	
9922	1	-93.17	13* 9*22	4/20/65	671	43.2	14.0	10.5	18.7	65.192	-86.0	13*19* 3	9.7		968	
9923	1	-117.84	14*46*45	4/20/65	671	43.2	14.1	10.6	18.7	65.185	-74.4	14*59*33	12.8		968	
9927	1	143.47	21*16*21	4/20/65	671	43.3	14.3	10.9	19.0	65.160	20.9	21*50* 3	33.7		968	
9937	1	-103.23	13*30*19	4/21/65	672	43.7	15.3	11.5	19.7	65.097	-87.4	13*39*33	9.2		969	
9941	1	158.08	19*59*54	4/21/65	672	43.8	15.5	11.7	20.0	65.072	-41.8	20*31* 3	31.2		969	
9942	1	133.41	21*37*18	4/21/65	672	43.9	15.5	11.7	20.0	65.065	-54.0	22*11*33	34.3		969	
9952	1	-113.28	13*51*16	4/22/65	673	46.1	22.6	11.3	21.9	65.002	-75.5	14* 4* 3	12.8		970	
9956	1	148.03	20*20*52	4/22/65	673	46.7	24.3	11.2	22.4	64.977	-38.8	20*54* 3	33.2		970	
9957	1	123.36	21*58*15	4/22/65	673	46.9	24.9	11.1	22.6	64.970	-51.8	22*34*33	36.3		970	
9958	3	58.69	23*35*39	4/22/65	673	47.2	25.6	10.9	22.7	64.964	-47.0	0* 1*58	26.3		970	
9966	1	-58.67	12*34*50	4/23/65	674	47.5	33.1	10.6	24.6	64.913	-46.5	12*46* 3	11.2		971	
9970	1	162.64	19* 4*25	4/23/65	674	47.2	35.1	10.9	25.2	64.888	-47.9	19*34*33	30.1		971	
9971	1	137.57	20*41*49	4/23/65	674	47.3	35.5	10.9	25.3	64.882	-53.7	21*15*33	33.7		971	
9981	1	-108.72	12*55*47	4/24/65	675	45.6	44.0	11.0	27.4	64.818	-74.6	13* 6*33	10.8		972	

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE					FMR. TAPE REEL NO.
ORBIT NO.	CEA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E N D		DROPOUTS, MINUTES W/R/T ANO					
		EARTH LNGI -TODE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-				
9985	1	152.59	19*25*22	4/24/65	675	44.8	45.6	11.5	27.9	64.793	-40.5	19*57* 3	31.7				972		
9986	1	127.92	21* 2*46	4/24/65	675	44.7	46.1	11.5	28.1	64.787	-48.9	21*38*33	35.8				972		
9995	1	-94.11	11*39*20	4/25/65	676	41.6	52.6	11.8	30.0	64.730	-88.9	11*47*33	8.2				973		
9996	1	-118.77	13*16*44	4/25/65	676	41.1	53.0	12.0	30.2	64.723	-68.3	13*29*33	12.8				973		
9999	1	167.20	18* 8*56	4/25/65	676	40.1	53.7	12.6	30.7	64.704	-47.9	18*39*33	30.6				973		
10001	3	117.86	21*23*43	4/25/65	676	39.7	54.5	12.7	31.0	64.691	-53.2	21*46*58	23.3				973		
10014	1	157.15	18*29*53	4/26/65	677	32.7	59.5	14.9	33.6	64.609	-40.1	19* 0*33	30.7				974		
10015	1	132.48	20* 7*17	4/26/65	677	32.4	59.7	15.1	33.7	64.603	-53.9	20*42*33	35.3				974		
10024	1	-89.58	10*43*51	4/27/65	678	26.7	63.2	16.3	35.7	64.546	-66.3	10*52*33	8.7				975		
10025	1	-114.25	12*21*15	4/27/65	678	26.0	63.2	16.6	35.9	64.539	-65.8	12*33*33	12.3				975		
10029	1	147.06	18*50*50	4/27/65	678	23.9	63.0	17.9	36.6	64.514	-58.3	19*23*33	32.7				975		
10044	1	137.00	19*11*47	4/28/65	679	24.0	64.3	21.6	39.5	64.419	-51.9	19*45*33	33.8				976		
10058	1	151.62	17*55*20	4/29/65	680	5.7	65.0	24.1	42.1	64.330	-44.5	18*27*33	32.2				977		
10068	1	-95.08	10* 9*18	4/30/65	681	4.5	65.3	22.7	43.0	64.267	-66.3	10*18*33	9.3				978		
10073	1	141.56	18*16*17	4/30/65	681	3.9	65.2	22.1	43.3	64.235	-8.9	18*49*33	33.3				978		
10074	3	116.89	19*53*41	4/30/65	681	3.8	65.2	22.0	43.4	64.229	-51.6	20*16*33	22.9				978		
10088	1	131.51	18*37*14	5/ 1/65	682	2.7	65.4	19.6	44.4	64.140	-26.0	19*12*33	35.3				979		
10089	3	106.84	20*14*38	5/ 1/65	682	2.6	65.5	19.4	44.4	64.134	-49.0	20*39*33	24.9				979		
10098	1	-115.19	10*51*12	5/ 2/65	683	2.0	65.8	17.6	44.9	64.077	-75.9	11* 3*33	12.4				980		
10102	1	146.12	17*20*47	5/ 2/65	683	1.8	65.7	16.9	45.1	64.051	-44.9	17*53*33	32.8				980		
10132	1	125.81	18* 2*40	5/ 4/65	685	-0.2	66.2	11.3	46.8	63.862	-29.8	18*39*33	36.9				981		
10133	3	101.14	19*40* 4	5/ 4/65	685	-0.3	66.2	11.1	46.9	63.855	-44.0	20* 5*33	25.5				981		
10145	1	145.08	15* 8*49	5/ 5/65	686	-1.1	66.3	8.8	47.6	63.779	-42.2	15*39*33	30.7				982		
10146	1	140.41	16*46*13	5/ 5/65	686	-1.1	66.4	8.6	47.6	63.773	7.5	17*20*33	34.3				982		
10160	1	155.02	15*29*46	5/ 6/65	687	-1.7	66.5	5.7	48.3	63.685	-10.9	16* 1*33	31.8				983		
10161	1	130.35	17* 7*10	5/ 6/65	687	-1.7	66.5	5.5	48.3	63.678	-51.0	17*42*33	35.4				983		

ORBIT NO.	CCA STA	READOUT					ORBIT					TIME INTERVAL OF FILE ON FMR TAPE					FMR TAPE REEL NO.	
		SATELLITE EQUATOR CROSSING AT CHBITAL ASCENDING NODE (ANO)					SPIN	VECTOR	ATTITUDE			SPIN RATE (DEG /SEC)	BEGIN	E	N	D	DROPOUTS, MINUTES W/R/T AND	
		EARTH LUNGI -TODE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)	MINU -TES W/R/T ANO	MINU -TES W/R/T AND	FROM-	TO-					
10175	1	144.95	15*50*42	5/ 7/65	688	-2.2	66.7	2.6	49.0	63.590	-56.3	16*23*33	32.9				984	
10176	1	120.28	17*28* 6	5/ 7/65	688	-2.2	66.7	2.4	49.1	63.584	-50.4	17*51*33	23.5				984	
10177	3	55.61	19* 5*30	5/ 7/65	688	-2.3	66.7	2.2	49.1	63.577	-61.1	19*31*33	26.1				984	
10189	4	159.56	14*34*15	5/ 8/65	689	-2.5	66.9	-0.4	49.5	63.502	-41.1	15* 5*33	31.3				985	
10190	1	124.89	16*11*39	5/ 8/65	689	-2.6	66.9	-0.6	49.6	63.495	-53.0	16*46* 3	34.4				985	
10204	1	149.49	14*55*11	5/ 9/65	690	-2.8	67.0	-3.6	50.2	63.407	-44.0	15*27*33	32.4				986	
10219	1	139.42	15*16* 8	5/10/65	691	-2.9	67.2	-6.9	50.9	63.313	-49.3	15*49*23	33.4				987	
10220	3	114.75	16*53*31	5/11/65	691	-3.0	67.2	-7.1	50.9	63.306	-50.5	17*16*23	23.0				987	
10229	1	-107.04	7*30* 5	5/11/65	692	-3.0	67.2	-9.0	51.2	63.250	-67.1	7*40*33	10.5				988	
10248	1	144.22	14*20*36	5/12/65	693	-3.1	67.2	-13.0	52.0	63.130	-2.2	14*53*33	33.0				989	
10264	3	109.49	16*18*55	5/13/65	694	-3.2	67.1	-16.3	52.6	63.030	-46.1	16*43*33	24.6				990	
10277	1	148.78	13*25* 5	5/14/65	695	-3.1	67.0	-18.9	53.1	62.949	-57.8	13*57*33	32.5				991	
10279	3	55.44	16*39*52	5/14/65	695	-3.1	67.0	-19.3	53.2	62.936	-46.7	17* 6*33	26.7				991	
10307	1	128.67	14* 6*57	5/15/65	697	-3.6	66.1	-24.2	54.3	62.761	-56.0	14*42*33	35.6				992	
10308	3	104.00	15*44*20	5/16/65	697	-3.8	66.1	-24.2	54.4	62.755	-48.3	16* 9*33	25.2				992	
10335	1	157.88	11*34* 1	5/18/65	699	-9.6	64.5	-24.7	56.8	63.586	12.4	12* 6*33	32.5				993	
10365	1	137.77	12*16*45	5/20/65	701	-15.7	63.0	-24.8	59.3	62.400	-32.1	12*50*33	33.8				994	
10409	1	132.27	11*42*11	5/23/65	704	-28.3	63.8	-21.7	64.2	62.128	-37.1	12*17*33	35.4				995	
10424	1	122.22	12* 3*12	5/24/65	705	-33.8	68.0	-19.7	66.6	62.036	-57.3	12*41*33	38.4				996	
10437	1	161.50	9* 9*22	5/25/65	706	-33.7	68.0	-20.8	67.4	61.956	-21.5	9*40*33	31.2				997	
10438	1	136.83	10*46*45	5/25/65	706	-33.7	68.0	-20.9	67.4	61.950	-52.7	11*20*33	33.8				997	
10447	1	-85.20	1*23*20	5/26/65	707	-33.7	68.0	-21.6	68.0	61.895	-92.6	1*31*23	8.2				998	
10448	1	-109.86	3* 0*44	5/26/65	707	-33.7	68.0	-21.6	68.1	61.889	-77.0	3*11*33	10.8				998	
10452	1	151.44	9*30*19	5/26/65	707	-33.7	67.8	-21.9	68.3	61.864	-25.3	10* 2*33	32.2				998	
10453	1	126.77	11* 7*43	5/26/65	707	-33.7	67.8	-22.0	68.3	61.858	-52.1	11*43*23	35.8				998	
10454	3	102.11	12*45* 7	5/26/65	707	-33.7	67.8	-22.0	68.4	61.852	-48.7	13*10*33	25.4				998	

READOUT										ORBIT				TIME INTERVAL OF FILE ON FMR TAPE					FMR TAPE REEL NO.
ORBIT No.	STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANG)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN		E N D		DROPOUTS, MINUTES W/R/T ANO				
		EARTH -TODE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-				
10463	1	-119.92	3*21*41	5/27/65	708	-33.7	67.6	-22.5	68.8	61.797	-70.6	3*34*33	12.9				999		
10483	3	106.66	11*49*38	5/28/65	709	-33.8	66.9	-23.3	69.8	61.675	-46.6	12*14*33	24.9				1000		
10491	1	-50.69	0*48*49	5/29/65	710	-33.8	66.7	-23.6	70.3	61.626	-66.2	0*58* 3	9.2				1001		
10492	1	-115.36	2*26*13	5/29/65	710	-33.8	66.7	-23.6	70.4	61.620	-75.5	2*39* 3	12.8				1001		
10496	1	145.95	8*55*48	5/29/65	710	-33.8	66.5	-23.7	70.6	61.596	-59.0	9*29* 3	33.3				1001		
10510	1	160.57	7*39*22	5/30/65	711	-33.8	66.0	-24.1	71.3	61.511	-30.4	8*10*33	31.2				1002		
10511	1	135.99	9*16*46	5/30/65	711	-33.8	66.0	-24.1	71.4	61.505	-52.8	9*52* 3	35.3				1002		
10520	1	-86.12	23*53*21	5/30/65	711	-33.9	65.7	-24.2	71.8	61.450	-65.5	0* 2*33	9.2				1003		
10525	1	150.52	8* 0*26	5/31/65	712	-33.9	65.5	-24.3	72.2	61.420	-30.2	7*34* 3	33.7				1003		
10526	1	125.85	9*37*44	5/31/65	712	-33.9	65.5	-24.3	72.2	61.414	-50.5	10*13*33	35.8				1003		
10535	1	-96.18	0*14*17	6/ 1/65	713	-33.4	64.7	-24.9	72.5	61.360	-22.4	0*23*33	9.3				1004		
10536	1	-121.65	1*51*42	6/ 1/65	713	-33.6	64.8	-24.8	72.6	61.354	-75.9	2* 7* 3	15.4				1004		
10540	4	140.43	8*21*18	6/ 1/65	713	-33.7	65.1	-24.6	72.9	61.330	-56.9	8*56* 3	34.8				1004		
10541	3	115.76	9*58*41	6/ 1/65	713	-33.8	65.3	-24.5	73.0	61.324	-51.4	10*22*33	23.9				1004		
10550	4	-106.26	0*35*16	6/ 2/65	714	-33.3	69.3	-24.5	74.6	61.270	-77.9	0*46* 3	10.8				1005		
10554	1	155.04	7* 4*51	6/ 2/65	714	-32.9	69.6	-24.8	74.9	61.246	-39.6	7*37* 3	32.2				1005		
10555	1	120.37	8*42*15	6/ 2/65	714	-33.0	69.8	-24.8	75.0	61.244	-51.3	9*18* 3	35.8				1005		
10565	1	144.99	7*25*49	6/ 3/65	715	-30.8	73.8	-25.6	77.1	61.157	-7.2	8* 0* 3	34.2				1006		
10570	3	120.32	9* 3*13	6/ 3/65	715	-30.8	74.0	-25.6	77.2	61.151	-49.8	9*27* 3	23.8				1006		
10579	1	-101.76	23*39*48	6/ 3/65	715	-28.5	77.2	-26.0	78.7	61.095	-66.3	23*50* 3	10.3				1007		
10583	1	159.61	6* 9*23	6/ 4/65	716	-27.5	77.1	-26.7	79.1	61.070	-38.1	6*41* 3	31.7				1007		
10584	1	134.94	7*46*47	6/ 4/65	716	-27.4	77.1	-26.8	79.2	61.064	-50.4	8*22* 3	35.3				1007		
10593	1	-87.08	22*23*21	6/ 4/65	716	-24.6	79.7	-27.4	80.7	61.008	-88.4	22*32*33	9.2				1008		
10594	1	-111.76	0* 0*45	6/ 5/65	717	-24.2	79.7	-27.6	80.8	61.001	-75.5	0*13* 3	12.3				1008		
10609	1	-121.87	0*21*43	6/ 6/65	718	-19.0	81.0	-29.7	83.0	60.909	-75.2	0*35*33	13.8				1009		
10612	1	164.17	5*13*54	6/ 6/65	718	-18.0	80.5	-30.5	83.2	60.891	-48.7	5*44*33	30 -				1009		

ORBIT NO.	STA	READOUT						ORBIT				TIME INTERVAL OF FILE ON FMR TAPE					FMR TAPE REEL NO.
		SATELLITE EQUATOR CROSSING AT ORBITAL ASCENDING NODE (ANO)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E N D	DROPOUTS, MINUTES W/R/T ANO				
		EARTH LONGI- TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS	DECLI- -NA -TION (DEG)	RIGHT ASCEN- -SION (DEG)	MINI- -NUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU- -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU- -TES W/R/T ANO	FROM-	TO-		
10627	1	154.12	5*34*52	6/ 7/65	719	-13.3	80.7	-32.3	85.1	60.800	-33.5	6* 6*33	31.7			1010	
10628	1	129.44	7*12*15	6/ 7/65	719	-13.3	80.6	-32.2	85.1	60.794	-51.2	7*47*33	35.3			1010	
10629	3	104.77	8*49*39	6/ 7/65	719	-13.3	80.6	-32.1	85.2	60.788	-45.6	9*14*33	24.9			1010	
10637	1	-92.58	21*48*50	6/ 7/65	719	-13.2	80.0	-31.3	85.6	60.740	-34.5	21*57*33	8.7			1011	
10638	1	-117.25	23*26*14	6/ 7/65	719	-13.3	79.9	-31.2	85.7	60.734	-75.9	23*38*33	12.3			1011	
10642	1	144.06	5*55*49	6/ 8/65	720	-13.3	79.6	-30.7	85.8	60.710	-58.7	6*29* 3	33.2			1011	
10652	1	-102.63	22* 9*48	6/ 8/65	720	-13.3	78.8	-29.5	86.2	60.624	-6.3	22*20* 3	10.3			1012	
10656	1	158.68	4*39*23	6/ 9/65	721	-13.3	78.5	-29.1	86.3	60.597	-39.9	5*10*33	31.2			1012	
10657	1	134.01	6*16*47	6/ 9/65	721	-13.3	78.5	-29.0	86.4	60.591	-53.3	6*51*33	34.8			1012	
10658	3	109.34	7*54*11	6/ 9/65	721	-13.3	78.4	-28.9	86.4	60.584	0.9	8*18*33	24.4			1012	
10671	1	148.62	5* 0*21	6/10/65	722	-12.8	77.9	-27.4	87.1	60.498	-44.5	5*33*33	33.2			1013	
10681	1	-98.07	21*14*19	6/10/65	722	-12.4	77.6	-26.2	87.7	60.431	-92.9	21*25* 3	10.7			1014	
10686	1	138.57	5*21*18	6/11/65	723	-12.4	77.3	-25.5	87.9	60.397	-57.2	5*56* 3	34.8			1014	
10695	1	-83.45	19*57*52	6/11/65	723	-12.6	77.0	-24.0	88.3	60.337	-68.2	20* 6*33	8.7			1015	
10696	1	-108.12	21*35*16	6/11/65	723	-12.7	76.9	-23.8	88.3	60.330	-76.2	21*46*33	11.3			1015	
10700	1	153.19	4* 4*51	6/12/65	724	-12.8	76.8	-23.1	88.4	60.304	-40.5	4*37*33	32.7			1015	
10701	1	128.52	5*42*15	6/12/65	724	-12.8	76.7	-23.0	88.5	60.297	-52.3	6*18*33	36.3			1015	
10710	1	-93.50	20*18*50	6/12/65	724	-13.0	76.4	-21.4	88.9	60.236	-66.8	20*28* 3	9.2			1016	
10711	1	-118.17	21*56*13	6/12/65	724	-13.0	76.4	-21.2	88.9	60.230	-74.6	22* 9*33	13.3			1016	
10716	3	118.46	6* 3*13	6/13/65	725	-13.1	76.2	-20.4	89.1	60.196	-51.8	6*26*33	23.3			1016	
10729	1	157.76	3* 9*22	6/14/65	726	-13.3	75.8	-18.1	89.5	60.109	-48.9	3*40*33	31.2			1017	
10730	1	133.08	4*46*46	6/14/65	726	-13.3	75.8	-17.9	89.5	60.102	-52.5	5*21*33	34.8			1017	
10740	1	-113.61	21* 0*45	6/14/65	726	-13.5	75.5	-16.1	89.9	60.035	-25.2	21*15*33	14.8			1018	
10744	3	147.70	3*30*20	6/15/65	727	-13.5	75.4	-15.4	90.1	60.008	-39.0	3*50*33	20.2			1018	
10745	3	123.03	5* 7*44	6/15/65	727	-13.6	75.4	-15.2	90.2	60.002	-63.0	5*30*33	22.8			1018	
10754	1	-98.99	19*44*18	6/15/65	727	-13.6	75.2	-13.6	90.5	59.941	-48.5	19*53*33	9.3			1019	

READOUT								ORBIT				TIME INTERVAL OF FILE ON FMR TAPE					FMR TAPE REEL NO.
ORBIT NO.	CDA STA	SATELLITE EQUATOR CROSSING AT CRBITAL ASCENDING NODE (ANO)				SPIN VECTOR ATTITUDE				SPIN RATE (DEG /SEC)	BEGIN	E N D	DROPOUTS, MINUTES W/R/T ANO				
		EARTH LONGI TUDE (DEG)	HOURS MINUTES SECONDS (GMT)	CALENDAR DATE	TIROS DAY	DECLI -NA -TION (DEG)	RIGHT ASCEN -SION (DEG)	MINI -MUM NADIR (DEG)	TOT (MIN. AFTER ANO)		MINU -TES W/R/T ANO	HOURS MINUTES SECONDS (GMT)	MINU -TES W/R/T ANO	FROM-	TO-		
10760	3	112.98	5*28*41	6/16/65	728	-13.7	75.0	-12.5	90.7	59.901	-51.7	5*51*33	22.9			1019	
10774	1	127.59	4*12*15	6/17/65	729	-13.3	74.8	-10.0	91.2	59.808	-45.2	4*47*33	35.3			1020	
10784	1	-119.69	20*26*13	6/17/65	729	-4.7	75.1	-12.7	93.7	59.742	-80.4	20*39*33	13.3			1021	
10787	1	166.89	1*18*25	6/18/65	730	-4.4	75.0	-12.3	93.8	59.722	-47.6	1*48*33	30.1			1021	
10788	1	142.21	2*55*49	6/18/65	730	-4.3	75.0	-12.2	93.9	59.715	-14.8	3*28*33	32.7			1021	
10789	3	117.54	4*33*12	6/18/65	730	-4.3	74.9	-12.0	93.9	59.709	-51.2	4*56*33	23.4			1021	
10790	1	-104.48	19* 9*47	6/18/65	730	-3.7	75.0	-10.5	94.4	59.650	-73.1	19*19*33	9.8			1022	
10803	1	132.16	3*16*46	6/19/65	731	-3.8	74.8	-9.5	94.5	59.617	-31.9	3*51*33	34.8			1022	
10804	3	107.49	4*54*10	6/19/65	731	-3.8	74.8	-9.3	94.6	59.610	-46.0	5*18*33	24.4			1022	
10812	1	-89.86	17*53*20	6/19/65	731	-3.9	74.6	-7.7	94.8	59.558	-89.3	16* 3* 3	9.7			1023	

APPENDIX B

SUBPOINT TRACK SUMMARY OF

AVAILABLE RADIATION DATA

In this section, the time interval for which radiation data are available on the FMR Tapes for TIROS VII from October 1, 1964 to June 19, 1965 is summarized diagrammatically by means of subpoint tracks for each interrogation day. As discussed previously, an interrogation day may be contained within the calendar day, or it may consist of 2 calendar days. This method of presentation enables the data user to quickly appraise the orbits containing data in an area of interest. Additional information illustrating the use of the Subpoint Track Summaries is explained in Appendix B, Volume 1.

